

RECORDS ^{OF} THE PAST

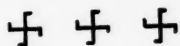
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THE NIOBID IN THE "BANCA COMMERCIALE" OF ROME

HOWEVER great the number of works of art may be that are brought to light every year in the countries of Greek and Roman culture, it is seldom in comparison, that an antique object is found of very first-rate quality, that excites everywhere the greatest interest, that attains immediate success, being raised henceforth in the eyes of our artists as an inimitable standard and taking its place amongst the highly noted works familiar to every well-educated man. Although eager researches have been made within the last decades in the countries of classic culture by archæologists of various nations and notwithstanding that these researches have been partly crowned with success, nothing has been found for many years of so great an artistic value as the recently discovered figure of a Niobid in Rome.

It is not even to the excavations of scientific men that we owe the discovery of this new masterpiece, but purely and simply to chance. In the middle of Rome, on the very spot where once in ancient times the gardens of Sallust were to be seen, there is a piece of ground, belonging to the Banca Commerciale Hali. While digging up the earth for a building here a spade struck the walls of a vault barely a few inches below the surface and there, under dust, bricks and other building materials, almost unhurt, was found the splendid statue of a young girl. According to the circumstances pertaining to the discovery, there is no doubt that this treasure was placed there in safety and pur-

posely immured in the troublous times of war. Later, when all was peaceful again, it was either forgotten, or it may be that even the careful owner himself was lost in the war without leaving behind him any knowledge of his secret. The statue lay there undisturbed and centuries passed until by some happy chance it was freed from the stuffy air of its protecting prison and brought to light again so as to fill, in the future, a place of honor amongst the classical works of art in Rome. Near the place where the figure was discovered, and where we suppose it to have stood, was the *Porta Salaria* through which Alaric entered Rome, 410 A. D., and Professor Lanziani's opinion, that the statue was at that time hidden away from the West-Goths, is probably correct.

The figure, made of finely-grained Grecian marble, represents a very youthful woman sinking to the earth deadly wounded by an arrow, which has pierced the back of her neck, who, sinking to the ground, grasps backward with both hands so as to remove the fatal weapon from the wound. The statue is, without doubt, that of a daughter of Niobe, who has to suffer death on account of her mother's crime. The movement forward, which is still to be seen in the prostrated figure, suggests flight, the right leg striding forward, even hurried flight. It is improbable that the girl knows from whence the fatal arrows come or who shot them; she only sees the effects of the arrows which have already slain some of her brothers and sisters, she forbodes her own ruin and seeks to evade her doom by rapid flight. Suddenly, in the middle of her flight, she too is pierced by the divine, invisible weapon and involuntarily grasps with both hands her wounded neck so as to remove the arrow. With her right hand she has seized the weapon, and presses unconsciously with her left her garment to the wound. This instinctive movement and the sudden uplifting of the right arm follow so quickly and with such violence that the drapery is loosened and torn away, thereby laying bare the upper part of the body as well as the left leg, which are thus presented so freely in all their sublime form to the eye of the observer.

That which distinguishes this figure from the great number of antique marble statues kept in the various museums of Rome is, above all, its exceedingly good state of preservation. Almost unhurt, it has risen up from its subterranean hiding place, and with the exception of a few chips here and there the right arm alone was broken, but could be easily restored without further difficulty. No corrosion caused by humidity or decomposition is to be seen on the smooth delicate surface of the fine-grained Parian marble, and the patina which is so often to be found on Greek works, giving them an infinite charm, goes a long way to complete the grace of this statue.

What strikes us most, is the lovely and dramatic conception and description of the event, the animated movement and the delicate rendering of the slender, youthful shape of the exquisitely perfect body.

The tragic event is expressed both in the suddenly interrupted flight and in the painful and desperately upturned look of the head



APOLLO IN THE THE GLYTOTHEK OF COPENHAGEN

thrown backwards. Although deadly wounded she tries to hurry on, the hope of still escaping her doom urges her forward, but her limbs refuse to act, her strength gives way, and, although the body is still held upright by its own vital power, in a few moments the slight but vigorous body will succumb and the last sigh escape those lips. It is a most impressive and touching sight to see such a youthful, promising life thus suddenly pass away.

On first hearing of the new discovery, everybody in Rome was so surprised, so struck, one might even say dazzled, by the extraordinary beauty of the statue that in the first excitement of the moment all idea of judgment was lost and all limits in the critical estimate and valuation of the statue were greatly surpassed. One was neither used, nor did one expect to find in Rome an original Greek work of art of first-rate quality, as is the figure of our Niobid. One counted so



NIOBID OF THE V CENTURY B. C., IN BANCA COMMERCIALE, ROME

little upon such an exceptional case, that it was taken into no consideration whatever and one did not even dare acknowledge the new statue as an original Greek work of the early classic period, and in consequence wished to recognize in it a copy made at the time of the Roman Empire. Gradually one began to see light again, to accustom himself to the extraordinary chance that had presented us with a gift of such rare value. One began to believe that he had to do, not with a laboriously



NIOBID IN THE GLYPTOTHEK OF COPENHAGEN

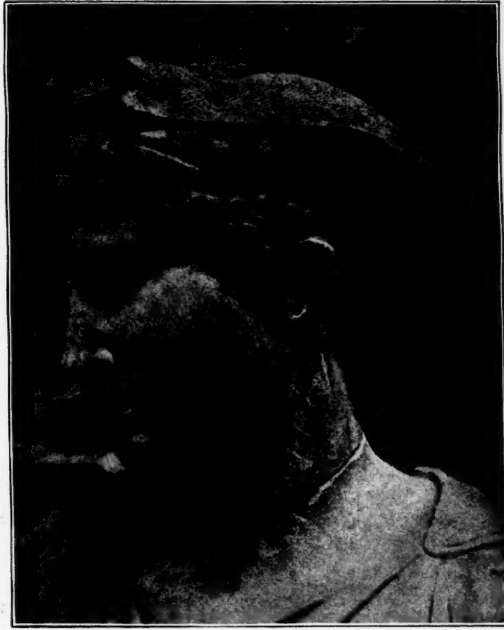
and cunningly executed work of the time of the Roman Empire, but with true Greek art of the best period, Attic style of the V century.

We do not know the name of the excellent artist out of whose workshop our masterpiece was produced, and may perhaps never know, but in any case he was an older contemporary of Phidias and by no means one of the least of them. The early classic writers do not tell us much about a reproduction of the story of Niobe dating from that period, but that this subject often attracted the Attic artists of that time and induced them to work on it is shown by the other statues of Niobids also dating from the same era, which are curiously supposed to have also been found in the gardens of Sallust. These are

the figures of the two Niobids in the Glyptothek at Copenhagen, the one of a flying girl and the other a prostrated youth. One considers both these figures, which are in many ways very similar to each other, as the work of the same artist, and supposed them, in addition to a figure of Apollo that is also to be seen in the Glyptothek at Copenhagen, to have originally belonged to one and the same group that stood in the pediment of an Athenian temple. In comparing these figures in Copenhagen with our Niobid in Rome, several scholars have wished to recognize in them a great likeness of style and execution, and would like to identify the newly-found figure with that same group of statues and attribute it to the same artist. On the other hand, I will not leave unmentioned that both the Niobids in Copenhagen, which I have often had occasion to examine, show great differences both in style and technical execution, and the Apollo bears an entirely different character—but it is not our task to examine whether the figures in Copenhagen belong together or not. As far as the newly-found Roman Niobid is concerned, there can be no question in my opinion, of a similarity of style with the above-mentioned 3 figures. In the *Burlington Magazine*, [1908, No. 1] the author of *Two Masterpieces of Greek Sculpture*, most decidedly opposes this opinion when he says: "The disparity of date which we have to recognize between the development of the Copenhagen and the Roman Niobids is too considerable for the two works to have belonged to one group or to be the work of one artist." Also the statues in Copenhagen were found on the same spot as the new Niobid, but this does not prove or assure anything. If Sallust, or the owner of these gardens either before or after him possessed some original Greek works, representing the Niobids, and sought to complete the group, he had to take what was offered him, and it is improbable that what he collected can lay claim to having originally belonged together.

That the statue may have belonged to a pediment group is suggested to us by its composition, which is chiefly intended to be viewed from the front as well as the inequality in its treatment of the front and back parts. The back has not been left unfinished, such a thing was not customary with the artists of that period, and even if not intended to be seen was modeled and finished, if only from personal pleasure in their own work, but not with the same assiduous care and labor as can be seen, for instance, in the execution of the left hand of our figure, which is less carefully treated than the front parts of the body. The garment at the back is also far simpler in arrangement, one could even say more antique in style than in the front, where the flowing folds of the drapery show more freedom and animation.

The Roman Niobid, as well as the statues in Copenhagen, may possibly once have stood in the pediment of some temple, but they are so far apart in style that they could never have belonged to the same group, or even have come out of the same artist's workshop. The flying girl reminds us in her animated attitude, not quite true to life, of the



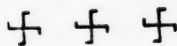
HEAD OF THE NIOBID IN THE GLYPTOTHEK
OF COPENHAGEN

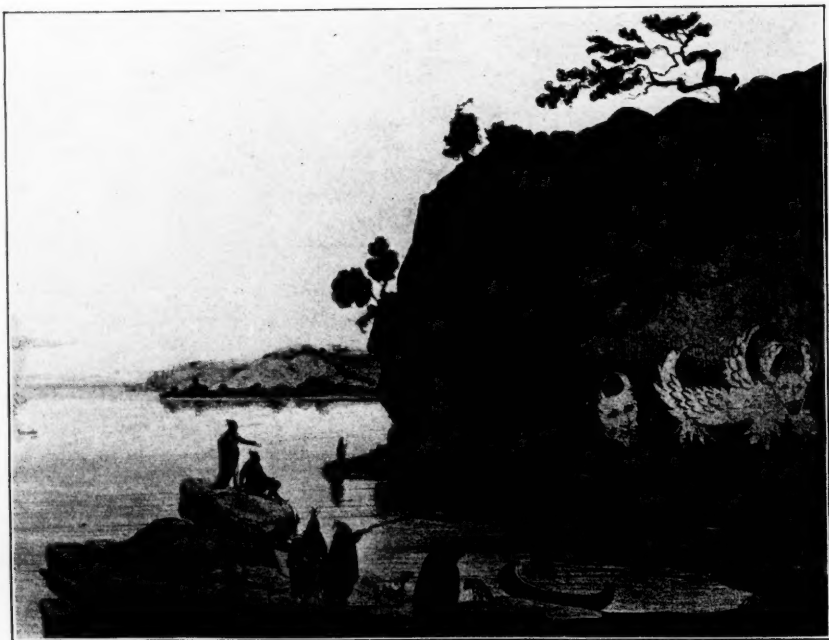
Olympic sculptures; in the way she runs, of the archaic statues of Victory; in the severe head-dress and the drapery which hangs in heavy regular folds, of early Attic art. The action of moving in the Roman Niobid is far more animated, truer to life and freer, the conception and rendering of the youthful, graceful limbs finer and more delicate and more in accordance with later art. The head, so full of expression, temperament and youthful pride, is a work of rare beauty. The upturned imploring look, the softly-parted lips, through which gentle sighs of pain escape, are full of life and feeling, whereas the head of the figure in Copenhagen, observed in itself, gives us no idea of painful excitement or despairing agony.

The creation of the Niobids in Copenhagen dates between the creation of the Olympia and older Parthenon sculptures, the Roman Niobid is some decades younger.

RICHARD MAHLER.

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THE PIASA, FROM A SKETCH MADE BY H. LEWIS, PROBABLY ABOUT 1849

THE SIGNIFICANCE OF THE PIASA

ON THE Mississippi River, between Alton and the mouth of the Illinois River, a small stream, known as the Piasa Creek, empties into the Father of Waters. At its mouth, on a lofty, sandstone cliff, at a height of 80 ft. above the river, there were, in 1673, and until the middle of the last century, two carved and painted representations of a monster known to the Indians as the Piasa, or Piasau, the "man-devouring bird." It was a combination of bird and serpent.

Father Marquette, the first-known white man to descend the Mississippi to the Missouri, said of them, in 1673: "As we were descending the river we saw high rocks with hideous monsters painted upon them, and upon which the bravest Indian dared not look. They are as large as a calf,* with heads and horns like a goat; their eyes are red, beard like a tiger's, and face like a man's. Their bodies are covered with scales; their tails are so long that they pass over their heads and between their forelegs, under their bodies, ending like a fish's tail. They are painted red, green, and black. They are objects of Indian worship."

*Hon. P. A. Armstrong says that they were 12 ft. high and 30 in length, Marquette not taking into account the distance of his canoe from them.

Hennepin mentions several accounts of these objects. St. Cosme saw them in 1699, and Douay and Joutel also saw them.

Thus much for the early explorers.

INDIAN TRADITIONS

The Miamis, who say they once lived near the present site of Alton, say that two monsters, as described above, and "with wings of an eagle, only much larger, and claws of an alligator, lived in the caves of the Piasa bluffs. They spent the greater part of their time resting or dozing on the rocks or flying over the country. The voice of one was like the roaring of a buffalo bull; of the other, like the scream of a panther. They swooped down and carried off young deer and elk, which they bore to their cavern homes to devour at their leisure. They never molested the Indians until one morning, when the Miamis and Mestchegamis met in the Piasa canyon in battle array, when, in the midst of the carnage, the two horrible monsters came flying down the canyon uttering bellowings and shrieks, while the flapping of their wings roared out like so many thunder claps. Passing close over the heads of the combatants, each picked up a Miami chieftain and bore him aloft, leaving the tribe utterly demoralized and routed."

The Illini say that the "man-devouring bird" which took up its abode in the lofty peaks near Alton had wings clothed with thunder, making a most fearful noise in its heavy flight; its talons, four in number, were like the eagle's. It one day descended into their midst and carried off one of their bravest warriors, and thereafter, other braves, squaws, and papposes. They lived in terror until their chieftain, Waw-to-go, obeying a dream he had had, offered himself as a sacrifice, and stood out in full view of the cliff to tempt the bird, which soon swooped down upon him, but was pierced to the heart by the arrows of twenty concealed warriors.

They had expected Waw-to-go would be slain, and in their joy at his miraculous escape, they cut the image of the bird on the rocks, and thereafter no Indian passed the spot without discharging his arrows at it.

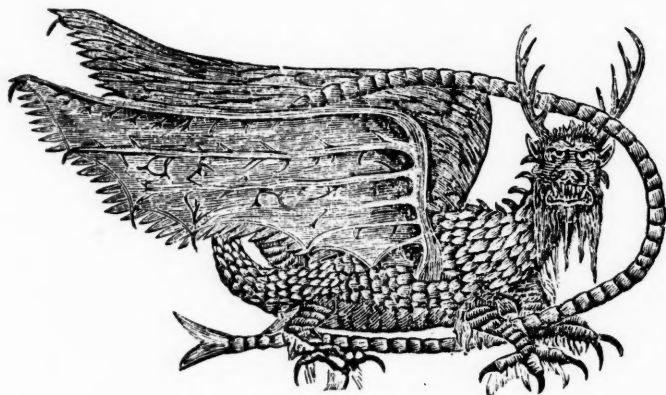
LATER TESTIMONY

When A. D. Jones visited the spot in June, 1838, there was but one image remaining, but he testifies that the Sacs and Foxes, passing down the river, went ashore and held a solemn council and war-dance at the base of the rock.

The archæologist, Wm. McAdams, of Alton, furnished the Smithsonian a picture of the petroglyph (used in this article), and also another less elaborate one, which shows a crevice as of a fracture in the rock, just behind the dim head of a second Piasa.

Prof. John Russell, of Jersey County, Illinois, in March, 1848, says that the marks of the bullets on the face of the cliff were almost

innumerable (for the Indians now had firearms). He explored the caves, the bottoms of which were covered with bones. And he adds this significant remark: "The Mississippi was rolling in silent grandeur beneath us; high over our head a single cedar hung its branches over the cliff, on the blasted top of which *was seated a bald eagle.*"



PEN-AND-INK SKETCH OF THE PIASA, BY WILLIAM DENNIS, IN 1825

[In addition to the foregoing:

Major Stoddard, in his *Sketches of Louisiana*, published in 1812, says: "What they call the Painted Monsters on the side of a high perpendicular rock, apparently inaccessible to man, known to moderns by the name of Piesa, still remain in good condition."

McAdams, in his *Records of Ancient Races*, refers to the picture shown above as "a pen and ink sketch made by Wm. Dennis, April 3, 1825."

John Russell, a graduate of Middlebury College, Vermont, 1817, settled in the vicinity of Shurtleff College, at Alton, Illinois, in 1828, and a few years later wrote the story or Indian legend of the "Piasau," and A. D. Jones, in his *Illinois and the West*, in 1838, relates the legend in substantially the same form. Neither of them, however, describes the figure in detail, nor do they state its location on the face of the cliff.

H. Lewis, who painted a panorama of the Mississippi River prior to 1849, also made the illustrations which appear in a rare German book—*Illustrirte Mississippithal*—by George B. Douglas, and published at Dusseldorf, about 1858. From this book, a copy of which is in the Library of Congress, we reproduce his picture of the bluff and the Piasau which is given at the beginning of this article. Whether this sketch was made by him prior to the destruction of the bluff between 1845 and 1847, when a stone quarry was opened at this spot, cannot now be ascertained, but it seems reasonable that, if not from actual observation, he surely would have made his sketch from description obtained by conversing with those who had been familiar with its appearance and location on the cliff. Comparing the various descriptions and references to this remarkable pictograph, which have been recorded covering a period of about 175 years, and noting the wide divergence in those several accounts which have been sufficiently minute in detail, we will scarcely be able to apply the verbal description to the pictorial illustration with that satisfaction which we might wish.

It is evident that McAdams failed to reconcile these differences in description when applied to the object as it appeared to him, since he endeavors to find a solution that would satisfy his own observation when he says "on certain days when the atmosphere was full of moisture, or after a very wet period, the figure on the rock could be seen much plainer." From this fact he was "satisfied that this atmospheric effect has been the cause, in part, of the differences in the descriptions of various observers. An old citizen, born and reared almost under the shadow of the bluff on which the picture of the Piasau was, tells me that sometimes you could see the wings and sometimes you couldn't."—Thomas Forsythe Nelson.]

Thus much for the existence of the Piasa petroglyph. But what of its significance?

Was this bird-serpent, with its half-human face, a combination of the thunder-bird and lightning-serpent, in which all the Algonkin tribes believed?

That all the Algonkin tribes did so believe, any one can assure himself by looking up the references to the thunder-bird, in *Jesuit Relations*. These are too numerous to be quoted here, but the early missionaries found the myth in all the tribes with which they came in contact, the Indians believing that the clouds were huge birds, because they soared through the sky, that the storm-cloud was a thunder-bird, which lived on serpents, sometimes picking them up from the earth, and sometimes spewing them out again so that they fell to the ground. One could see that the lightning was a serpent by the sinuous lines stamped on the trees which it encountered on its way down. Some of them said the thunder-bird was a man like a turkey-cock, who shot fiery arrows at his enemies.

Bancroft, Leland, Gatschett, Brinton, Dorsey, Chamberlain, and others all testify to the widespread belief in thunder-birds and lightning-serpents. Some of the tribes said the thunder-bird lived and hatched in the sky, and the young ones flew about squawking and restless, causing thunderstorms. Others said it had its nest on certain mountain peaks; others that thunder-birds' nests had been found on the plains and the young ones killed by hunters whom disaster speedily overtook. Some represent the lightning-serpent as issuing from the bird's eyes, some from its beak, some from its tail. The Passamaquoddy, of Maine, said that once an Indian was whirled up in a roaring wind, during a thunderstorm, and was set down in the village of the Thunderers, whom he found to be very like men, only they had wings. The crash of the thunder was the sound made by the flapping of their wings. The low rolling thunder was the sound of their ball playing. Sometimes, when the Thunder-boys are playing, they drop the ball; the Indians have picked up these fallen "thunder-bullets."

Near Big Stone Lake, in Dakota, are several round boulders, which the Sisseton Sioux call the eggs of the thunder-bird. The Comanche know a place on the Upper Red River, where a thunder-bird once alighted on the ground, the place being identified by the grass being burned off over a space, having the outline of a bird with

outstretched wings. They tell of a hunter wounding a bird, and being afraid to attack it alone; he went for help, but, as the party approached, the thunder rolled and the lightning flashed out of the ravine, where the bird lay, and as they came still nearer the lightning blinded them so they could not see the bird, and a flash killed one of them. They fled back to camp in terror, for they knew then that it was the thunder-bird. (Eth. Rep't., XIV.)

The Haida, of Alaska, have a thunder-bird tattooed on each hand, the colors being red, blue, and black. They have a carving of it grasping a whale in its claws.

The Kwataka, or Man-eagle, of the Mokis, carved on the rocks, near Walpi, Ariz., closely resembles the Piasa of Illinois, having the same position, wings elevated (not extended), body covered with scales, or arrow-markings, head round, with feathers or horns on the top, legs with three talons, and in one claw it is grasping a serpent-like animal which it seems about to devour. Like the bird of the Illini, it was said to have lived in the sky and to have sorely troubled the people until a warrior shot it dead.

The writer has a carving of the thunder-bird, made by Klalis, a Kwakiutl Indian, from Vancouver, and this carving clearly represents an eagle. Klalis said that the thunder-bird used to live with his family on the peak of a mountain, near Puget Sound. It could become a man by pushing up its beak, which then became the visor of his cap.

Among the Ojibwas, Dakotas, Arapaho, and the Indians of Vancouver and Alaska, the eagle was taken as the representative of the thunder-bird, and observation of eagles, living in the crags, screaming, and swooping down to carry off animals and young children, probably lent details to the myth of the thunder-bird. And eagles, as we have seen, lived in Illinois.

The thunder-bird myth extends from the Atlantic to the Pacific, and from Behring's Straits to the Isthmus of Panama. There is a great Serpent Mound in Adams County, Ohio, many bird mounds in Wisconsin, and many thunder-bird mounds on the coast around Puget Sound. Mound-effigies, pictographs, petroglyphs, tattooes, and textile representations of the thunder-bird and lightning-serpent are found among the Micmacs, of Nova Scotia; the Ojibwas, of the Great Lakes; the Sioux, of Dakota; the Kwakiutl, of the Sound; the Central Eskimo, Tlinkets, and Haida, of Alaska; the Crees, of the Canadian Northwest; the Wichitas, Arapaho, and other tribes of the western plains; the Pueblos, of New Mexico and Arizona, and the Aztecs, of Mexico. The tribes of Illinois belonged to the same great Algonkin family as the Micmacs, Passimaquoddy, Ojibwas, and Sioux, and in all human probability the image with the face of a man, the wings and claws of an eagle, and the tail of a serpent, carved on the rocks at Alton, was the great thunder-bird or storm-spirit of the Illini.

CLARA KERN BAYLISS.

Macomb, Ill.

A BRITISH CHARIOT-BURIAL AT HUNMANBY, IN EAST YORKSHIRE*

IN May last [1907], during the process of excavating clay for brick-making in a pit close to Hunmanby station, a landslip occurred which exposed some articles of bronze. The writer was acquainted with the circumstance, and immediately went to Hunmanby, where, with the assistance of Mr. C. G. Danford, of Reighton, and of Mr. Parker, the owner of the pit, excavations were made, resulting in the discovery of a British chariot-burial.

From a geological point of view the exposure in the brick pit is of some interest, and consists of a section in the glacial series, at a height of about 300 ft. above the level of the sea. In the lower part of the pit is an exceedingly tough dark-coloured boulder clay or "till," crowded with far-travelled erratics, some (particularly the limestones of the Carboniferous period) being polished and striated. About 5 ft. of this deposit are exposed. Immediately above it are about 4 ft. of finely-laminated grey stoneless clay, evidently of lacustrine origin, excellent for brick-making. This is followed by 6 ft. of fine marly sand, mostly evenly bedded, and, at the top of the section, about 6 ft. of rough ferruginous gravel, which is fairly compact. As might be assumed from the nature and relative positions of the different strata, small landslips occasionally take place, the upper gravels sliding down on the clays beneath.

The objects exposed by the recent landslip were a bronze bridle-bit, and fragments of a thin bronze plate.

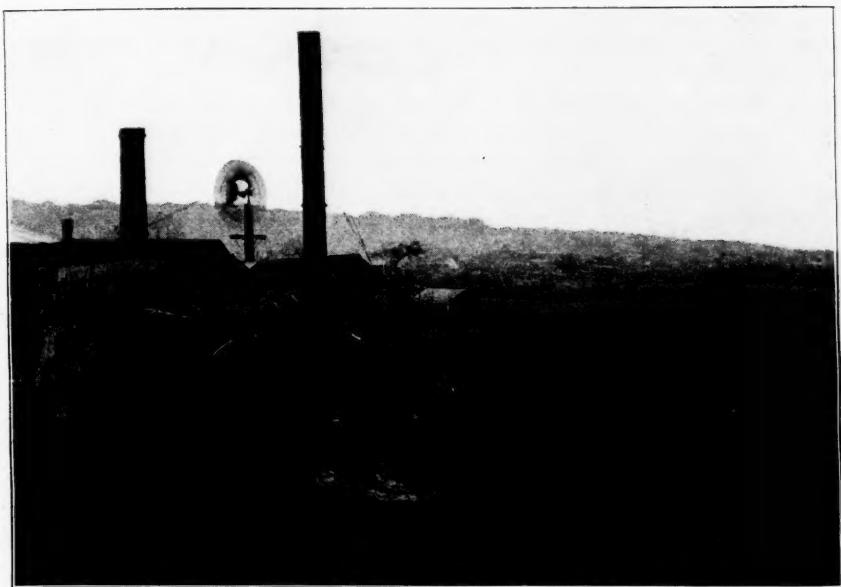
Attention was first paid to the slipped mass of gravel. This was carefully examined, and yielded the iron hoop of a chariot wheel, though it was in several fragments. The hoop is slightly over an inch in width, but on account of its oxidised state it is not possible to ascertain the exact original thickness of the iron. The rim appears to have been turned inwards on each side. Sand and small pebbles have adhered to the tyre. From the specimens obtained the diameter of the wheel was calculated to have been nearly 3 ft. Portions of the iron hoops for the naves were also secured. These appeared to be of thicker material, and, if complete, would be 6 or 7 in. across. Obvious traces of wood were found adhering to the iron of both the large and small hoops, but nothing was present to indicate how many spokes existed, nor, indeed, was there evidence of spokes at all. One or two curved pieces of iron were also found.

*Reprinted with additional illustrations from *The Yorkshire Archaeological Journal* [England], Part 76, 1907.

After being satisfied that there were no further relics amongst the slipped material, attention was devoted to the grave, which was well shown in section at the top of the pit, the disturbed portion being readily distinguished from the naturally bedded gravel at its sides, particularly as a thin layer or "pan" of iron lined the grave. This "pan" owes its existence to the disintegration of iron, of which metal quite a large quantity must have occurred amongst the objects interred.

The burial was situated under a slight mound, or tumulus, now almost levelled as a result of agricultural operations, though some of the workmen remembered it when it was much more conspicuous than it is to-day. The grave was basin-shaped, and the sides curved inwards. It was 11 ft. 6 in. across the top, and 3 ft. 6 in. deep (measured from the original land level) in the middle. The floor of the excavation was not horizontal, but was 5 or 6 in. deeper at one end than at the other. The infilling consisted largely of sand, with occasional sandstone, etc., pebbles. This material, partly from the quantity of iron it contained, and partly no doubt from the decayed organic material, was exceedingly compact and difficult to work. Towards the bottom of the grave was a quantity of greyish material, with the peculiar "greasy" feeling so characteristic in places of this nature.

On carefully examining the section, it was seen that traces of bronze occurred. Some of this material was in very thin plates, and too far decayed to bear touching, and some was in the form of a beading or tube cut horizontally, about a quarter of an inch wide. After several hours' work it was seen that lying on the bottom of the grave was a large shield of wood, apparently oak, ornamented on the upper surface with exceedingly thin plates of bronze, and with a border formed of more substantial material—a strip of bronze, about one-sixteenth of an inch in thickness, and three-quarters of an inch in width. This had been carefully hammered over into a U-section, into which the edge of the wood shield was clearly fitted. This bronze strip was fastened to the wood by means of small bronze rivets, about a quarter of an inch long, exactly the thickness and shape of an ordinary household pin-head. Unfortunately the greater portion of this shield had fallen with the landslip, and with the exception of a few pieces of bronze, forming the border, not any of it was recovered; nor is this to be wondered at, as even in that portion examined in position both the wood and the thin ornamental plates were so fragile and decayed that they would not bear touching. As much as could be possibly moved was taken away, though this was only accomplished by also removing the soil upon which it rested. The portion of the shield remaining was nearly two feet long, almost straight-sided, except towards the ends, where the edges curved round, from which it would appear that the complete shield was straight-sided, with rounded ends, and quite likely resembled in shape the well-known enamelled bronze shield from the Thames at Battersea, figured as frontispiece to the



GENERAL VIEW OF THE LOCALITY AND CUT WHERE CHARIOT-BURIAL
WAS FOUND IN EAST YORKSHIRE

recently-issued *Guide to the Antiquities of the Early Iron Age* in the British Museum. The Battersea shield, which is of the same period as that of Hunmanby, is about 30 in. long and 13 in. wide. At Hunmanby, however, it was obvious that the whole of the shield had not been covered with bronze, but was ornamented with thin plates, riveted on to the wood. Where the bronze had not entirely disappeared it was seen to be ornamented with the scroll-work in repoussé, so characteristic of the late Celtic period. Small pieces of this remained, and were carefully removed, whilst in other places the rivets alone indicated where the bronze covering had been.

Across one end of the shield were the remains of a flattened tube of thin bronze, of which little more than the cast remained—the metal having almost entirely disappeared. This was traced for about 6 in. and may have been the remains of the thin end of a bronze scabbard, or of a spear—most probably the latter, as no other signs of a sword were visible.

Near the edge of the shield, and a few inches above it, were two curved pieces of iron of doubtful use—possibly part of the chariot—as well as various other pieces of that metal. Amongst the latter were two rivet-like pieces of iron (*i.e.* small bars with “heads” at the ends) with the wood still adhering to the sides, evidently used in connection with the construction of the chariot. These and many other evidences of the vehicle itself having been buried are of im-

portance, as according to some authorities a "chariot-burial" sometimes means that only the wheels and horse-trappings were buried with the warrior.

As might be expected from the nature of the subsoil, bones were very few indeed. Immediately below the tyre of the wheel presently to be described, however, were a fragment of bone and parts of two teeth of a horse, in an advanced state of decay, but apparently good evidence of the animal having been buried with the chariot.

Perhaps one of the most interesting finds, however, was the iron tyre of the second wheel, the upper portion of which was found in position about a foot from the bottom of the grave. It was soon found that the wheel had collapsed, the lower portion being flattened out on the bottom of the excavation. The position of the iron demonstrated that the wheel, and presumably the chariot also, had been buried in its normal standing position, and that as the wood decayed the tyre gradually subsided under the weight of the earth above. Had the wheels alone been buried, even in a standing position, the soil would gradually have taken the place of the decaying wood, and the tyre would have been found complete. Between the two crushed portions of this iron rim were found the remains of the smaller ring of iron which surrounded the nave of the wheel.

The bridle-bit of bronze¹ found in the first instance is very similar in type to the specimen from Arras, now in the York Museum, which is figured and described by the Rev. Edward William Stillingfleet, in the *Account of the Opening of Some Barrows on the Wolds of Yorkshire*.² The Hunmanby bridle-bit, however, is rather larger, and is more delicate in design. The two rings forming the bit are made of bronze, they are $2\frac{7}{8}$ in. in diameter, and the ∞ -shaped piece is $2\frac{1}{2}$ in. in length.

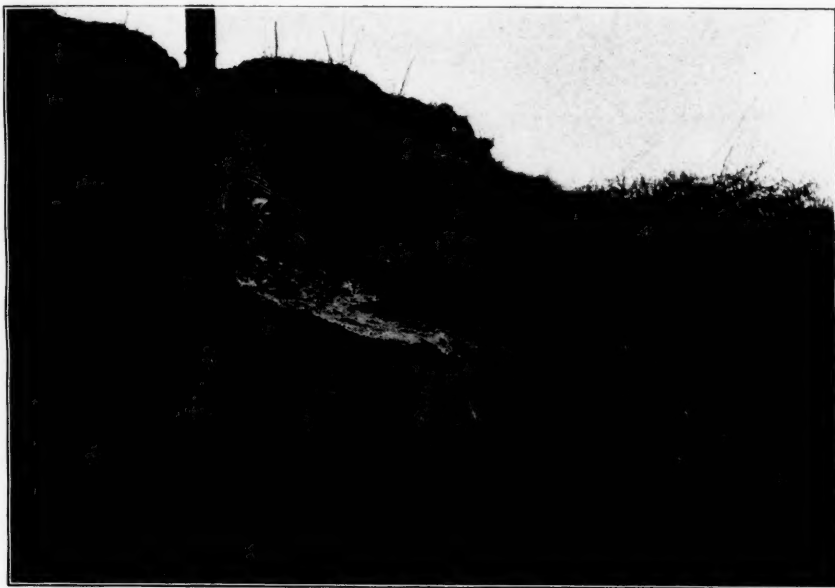
There is also a thin lenticular piece of plain bronze, measuring about 3 in. by $2\frac{1}{2}$ in., which is polished on the convex side. At its edge there still remains a rivet, in position, from which it would appear that it has been fastened to something. The use of this is doubtful; it is possibly a portion of a bronze hand-mirror, metal mirrors having been found with chariot-burials of this period elsewhere. The precise original position of this object cannot be ascertained, as, together with many smaller fragments, it was found in the slipped earth. From the same material also a portion of a large bronze ring was secured. This at first was thought to be part of a second bit (as bits generally occur in pairs in chariot-burials), but from the way it thickens towards its

¹In Canon Greenwell's paper on *Early Iron Age Burials in Yorkshire*, just issued (*Archæologia*, vol. lx., pp. 251-322), a postscript is added relating to the Hunmanby burial. In this, referring to the bridle-bit, Canon Greenwell writes: "It is stated to be made of bronze, but is, no doubt, like many others which have occurred elsewhere, of iron, bronze-coated." In this, however, Canon Greenwell is mistaken. The Hunmanby bridle-bit is broken in more than one place, and unquestionably is bronze to the core.

²*Memoirs illustrative of the History and Antiquities of the City and County of York* (*Proceedings of the Archæological Institute* (York vol.), 1846, pp. 26-40). The figures there given are reproduced in Canon Greenwell's paper just referred to, and in the recently issued *Victoria History of Yorkshire*, vol. i.

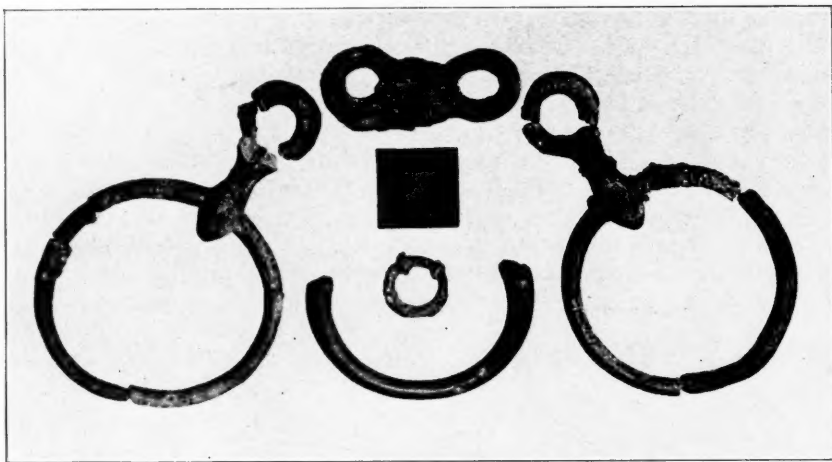
broken extremities it has evidently been for some other purpose. Where broken there are traces of iron, which have the appearance of being part of something to which the ring was attached. A smaller ring of bronze thickened in two places, was found in the grave near the tyre. It is probably part of the harness, and somewhat resembles the bronze ring attached to the upper part of the linch-pin, shown in Fig. 2 of Plate 4 of Stillingfleet's paper, and also reproduced by Canon Greenwell in *Archaeologia*, vol. lx., fig. 40, p. 40.

With regard to the age of the Hunmanby chariot-burial, it seems probable that it dates from the II or I century B. C. The early geographer, Ptolemy, records that there was in his time in this district a



NEAR VIEW OF THE CUT WHERE CHARIOT-BURIAL WAS DISCOVERED IN
EAST YORKSHIRE

tribe of the Parisi, presumably a branch of the Parisii on the Seine, who have left their name in the city of Paris. The ancient tribe of the Brigantes also occupied East Yorkshire in pre-Roman times, but which was in occupation first, or whether both lived in the area as "neighbours," is not known. It is known, however, that in certain small tumuli of the early Iron Age, which exist in East Yorkshire (and in these alone), chariot remains and horse trappings have been found buried with the dead. Of these chariots and the havoc they wrought there is abundant evidence in the early Roman records. And it is of some moment to bear in mind that East Yorkshire—the land of the Parisi and Brigantes—has yielded such positive proof of the former existence of these early methods of warfare.



BRIDLE-BIT, ETC., FROM THE CHARIOT-BURIAL AT HUNMANBY,
EAST YORKSHIRE, ENGLAND

When it is remembered that Canon Greenwell, Mr. Mortimer, and others have opened somewhere about 700 early British burial mounds in East Yorkshire, and that out of that enormous number only about half-a-dozen chariot-burials were met with, the importance of the present discovery at Hunmanby will be appreciated.

It may here not be without interest to briefly refer to the previous records of a similar kind.

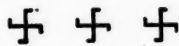
Canon Greenwell, in his *British Barrows* (1877, p. 454), describes 3 chariot-burials found near Market Weighton. In one barrow were the iron tyres of two wheels, about 2 ft. 8 in. in diameter. The naves, of wood, were $5\frac{1}{8}$ in. in diameter. There were two snaffle-bits of bronze, some rings, and a circular mirror of iron, with a bronze plating fastened to the iron by small rivets. In two other instances (one at Arras and one at Hessleskew) the wheels only appear to have been buried. With one of them was also a mirror, and accompanying the other was a shield with a bronze boss and an iron rim. In 1875 Canon Greenwell opened a small barrow at Beverley in which "two wheels of the chariot and what is almost certainly an iron bit were the only articles discovered."

In his recently published *Forty Years' Researches in British and Saxon Burial Mounds of East Yorkshire*, Mr. Mortimer gives a summary of what is known of Yorkshire chariot-burials. In addition to those referred to above, mention is made of the remains of a "horse and cart" found in a gravel pit at Seamer. The hoops of the wheels were rusted and broken, and all the wood had disappeared. A workman carried the bones and iron away and sold them. It was not until the close of his work amongst the East Yorkshire Barrows that Mr. Mortimer was fortunate enough to meet with a chariot-burial himself.

In 1897, in opening one of the so-called Dane's graves near Driffield, he found the hoops of the wheels and naves of a chariot, and rings of bronze and iron belonging to the horse-trappings. Reference is also made to two other probable finds—one was at Huggate, when the tyres of two small wheels were carted away, with many bones, whilst levelling a barrow; the other was in 1888, during the construction of the Driffield and Market Weighton Railway. In filling a wagon from a cutting near Enthorpe, a lot of bones and rusted iron were observed. A pin or bolt, of bronze and iron, was picked out, and is figured by Mr. Mortimer. This is undoubtedly one of the articles known as "linch-pins," similar to those found in the Arras, etc., chariot-burials.

THOMAS SHEPPARD.

Hull Museum, England.



MOUNDS OF NORTHWESTERN ILLINOIS

THE PORTAGE GROUP

THIS large group of tumuli is located on the land of Mr. John Hess, near Portage Station, 3 miles southwest of Galena. It occupies the summits of two ridges separated by the Portage, or main ravine, a long, dry run, and consists of 39 mounds, 26 of which are conical and the remaining 13 elongate or wall-like. All of the latter class are located on the eastern ridge, so that here at least we have a fairly well defined area, given over to each class of tumuli, a feature which lent to this group uncommon interest.

At some other points mounds of both kinds are found more or less intermingled, and yet it is worth observing that there is not an instance, within the territory covered, where mounds of the larger conical structure, such as the Dunleith group, the Portage group, the Kroft group at Hanover, "Lost Mound," and the Fisher group, are associated with the wall-like type.

The twin ridges at Portage form hill summits, nearly isolated, connected with the mainland to the north only by narrow "necks." There is no evidence of defensive works on these necks, nor are there any fortified points within the district so far as known.

The Galena River sweeps along the east base of the eastern ridge, and Harris' Slough washes the western base of the western ridge.

THE CONICAL MOUNDS

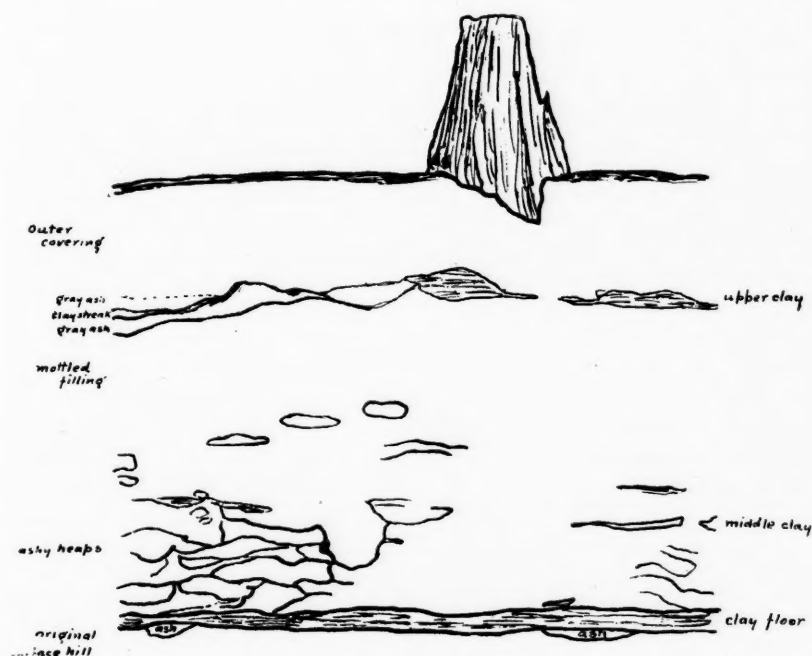
[Mound No. 16]

Of these mounds No. 16 earliest attracted attention because of its larger size and its somewhat central position in the group. In May, 1895, it was photographed, showing the large, white-oak stump upon its summit, and permission was gained from Mr. Hess, the owner of the property, for an examination of the structure. Work was started at the south base, and a cut 11 ft. 3 in. in width pushed through to the center, with one lateral trench 3 ft. wide on the left, at the southwest base. A corresponding cut from the north base, with a lateral trench and cuttings on the northwest was made later, and it was intended to remove the east and west portions in a similar manner, but the work remains incomplete. The mound had been opened years before, about 1878, by a trench from the north, but the exterior appearance at the center was not such as to indicate that much damage had resulted, and it seemed also that an examination of the structural detail would repay the outlay of labor necessary.

The results of the examination, while far from satisfactory, are yet suggestive to the student of the beginnings of an autochthonous architecture, aside from their value in comparative study, and if they shall serve as an incentive to others to examine other similarly desecrated tumuli, now fast passing into utter ruin, we may yet secure most gratifying results from their study, even though others who preceded us have reaped what should be the full rewards of our labors.

The work of excavation followed a definite plan, and the results were platted and drawn to scale. Everything relative to the structures, whether at the time of interest or not, was noted, and in this way peculiarities of structure not understood in the field were later worked out. Sketches of the front and side walls were made at intervals of 15 inches, and a base level marked on the side walls and carried through the structure, insured the absolute accuracy of these sketches. The old opening was cleared of the fallen earth, and the base of the mound thus restored to the condition in which it was left by these older investigators, enabling us to see the extent to which their excavation had penetrated. They had evidently removed the primary burials and partly destroyed a log vault in which they were placed.

Referring now to a chart and sketches of the mound, we found beneath the structure a portion of the original hill-top undisturbed, 40 ft. in diameter, retaining its original slight dip toward the south. There are a few burnt spots to be described later, and the rectangular depression for the mortuary chamber and sills, but otherwise we have here a well-preserved fragment of the ancient hill surface, as it existed before the erection of the mound. Our trenches cut through sections of what would probably prove to be a circular trench, within



CONICAL MOUND 16, AT PORTAGE, ILL.

the mound structure, encircling this undisturbed area, a feature of much interest, which should be worked out in full. Similar buried trenches are familiar to English archaeologists, having been found in many of the ancient tumuli of England.

Yellow clay, presumably from the bottom of this trench, was worked into a clay floor over a portion of the circular area. The earth above the clay in the trench seems to have been stripped and piled along the inner edge. The floor is rather rectangular than circular, evidently with rounded corners, and the vault was placed north-west of the center of this. The orientation is not precisely accurate, the longer axis of both the vault and mound, and probably of the clay floor, being 30° west of north, but there is probably no other design in this than in a general conformation to the valley and ridge, which seems to have been the dominant idea with these people in locating their structures.

The sides of the mound were covered with a deep coating of gray ash, and while this* was building some liquid, together with liquid clay from the mass of yellow clay near the summit, ran down the slope

*See Stevens "Flint Chips," p. 383.

on all sides in thin sheets, underneath and through the ash, discoloring it and extending down into the buried trench, which the mingled ash and clay filled in irregular sheets, forming a concrete-like mass. Here we see the inner edge of the buried trench, over which the ash and liquid clay have poured, and all of the sectional elevations show the streaks of this liquid through the ash. The ash, when dry, is nearly white in color and very porous, and filled with cylindrical root casts, precisely as in a natural soil, an undeniable evidence of age.

The surface of the fused clay and earth around the central vault was more or less covered with the decayed wood or bark used in roofing the vault. Even the traces of the poles, which supported the roof can be made out, and the grain shows the direction in which the boards, poles, or bark was laid. The western corner of the vault shows the holes where the roof poles entered and the middle clay contains decayed wood and lime, which occurs here in scattered pieces and in large patches. Some, if not all, of this lime results from the decomposition of clam shells, for fragments of crumbling shell, still retaining their luster, were imbedded in the "middle clay."

The roof of the vault had fallen, precipitating the debris and the superimposed deposits, as the various sketches indicate, and causing great vertical fissures in the body of the structure, dislocating to some extent all of the central deposits above, and later, when opened by the local explorers, of 1878, large portions of the weakened structure split off and fell into their abandoned excavation.

The source of much of the lime or decomposed shell in the vault seems to be from beneath the ends of this decayed wood of the roof, but what purpose, if any, may have been served by these shells is altogether conjectural. Frequently the massed lime will contain within it a line or lens of earth, as if resulting from the decomposition of both valves of a unio shell. Sometimes there were some of the black, velvety patches upon this middle clay, and at one point, where the imprint showed the clay had been forced up between two poles, while wet, leaving a cast of the bark, there was the imprint of grass.

The bulk of the mound above the middle clay is composed of earth similar to that of the heaps below, except that the separate deposits are less distinct, producing in the vertical section a mottled appearance, quite different from that of the lower earths. This material fills out nearly to the inner edge of the trench, and attains, near the center, an elevation of 6 ft. above the clay floor.

The upper southeast central part of this earth and a heavy deposit of raw, yellow clay above it, contained a large quantity of very much decayed or calcined human bones in great disorder. Neither the earth nor the clay are burnt, however, nor is there any definite ash-bed or embers other than a deep white ash, coating the sides of the mound, so that the incineration seems to have occurred elsewhere.

Probably all of these upper burials are the gathered remains from mortuary scaffolds or graves, and incinerary pyres, representing the accumulations of a period, and although so badly broken they were of great interest, and many of them were gathered and preserved for future study.

The bones were those of subjects ranging from infancy to old age, and there was, consequently, much contrast shown in physical structure. Some indicated by their massiveness great strength, but none were of any extraordinary size, nor had they other peculiarities than an occasional humerus, with a perforation of the olecranon fossa, so far as could be ascertained by examination in the field.

On one inferior maxillary it was noticed that the two left incisors were not separate teeth, but firmly attached, one to the other, and the teeth protruded very much. Some of the bones are very small and slender, considering the apparent age of the subject, but doubtless these are parts of female skeletons.

In the ancient hill level, near the edge of the clay floor, and in the upper earth of the mound near some of the human bones was a round, green-coated stone, yellow within, and broken on one side. Near this was a piece of flint and a bit of chert.

We have now followed patiently the details of this structure so far as exposed—details more tedious in the telling, by far, than in the working out.

I have tried to locate approximately from the evidence gathered how long ago we should look for the completion of this mound. The actual and visible evidence of the white-oak stump on its summit carries us back to about the year 1650, but the filled-in root cavities, which penetrate all portions of the structure doubtless antedate this by hundreds of years.

The rotted condition of the timbers of the mortuary chamber, buried as they were far below the reach of frost and air, point to a remote antiquity. There is no doubt of this if one is prepared to admit the comparative value of evidence gathered in European research. The evidence of the buried ancient hill surface, beneath the clay floor, throws no certain light upon the question of comparative antiquity. The depth of the leaf mould is scarcely an inch, while that of the laminated top-soil on the level surrounding the mound at present is about 4 in. There is also the question of the source of the earth for the erection of the structure to be considered.

If the earth used in the erection of this mound was taken from the immediate hill surface, then we must consider the soil now covering that surface, at least in part, to be the slow accumulation of the years that have passed since its erection. There is no direct external evidence as to the source of the earth used in the construction, and we can judge only by an examination of the structure.

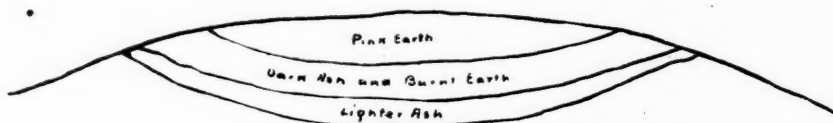
MOUND 7

Mound 7 was rather thoroughly examined in the summer of 1899 for the purpose of comparative study, and was of such interest, purely as a structural study, that it seems best to give it considerable space here. Its resemblance to one of the mounds of the McDonald group, to be mentioned later, and also to some features at Mounds 5 and 16, of the present group, are of interest.

Mound 7 is the initial mound on the south of the series of larger tumuli, which crown the summit of the western ridge at Portage. There are two sub-groups of 4 and 2, respectively, on the southeast, on a lower portion of the ridge, but from Mound 7 extends a chain northwest, somewhat evenly spaced, to the end of the ridge.

The mound had been opened years before by a narrow trench from the south, but was little injured, although the central ash-bed was penetrated. For comparative study it was reopened during the summer of 1899, by a trench from the west, and encountering material of much interest the excavation was extended on all sides, through 4 three-foot sections in the central part.

No entirely satisfactory theory can be adduced to explain the mode of construction as found in the mound, but the chart and sketches of section elevations show very well what was found, and in some respects it is similar to Mound No. 1, later opened at McDonald's.



SECTION 6, MOUND NO. 7

There seems to have been originally a simple conical mound here, of yellow clay and ash, similar to Mound 5 of this group, and to No. 4, at McDonald's. This structure then seems to have been altered by creating, at the center, an oblong, saucer-shaped hollow, the major axis of which extended northwest to southeast, or parallel to the ridge and valley. This excavation extended down nearly to the bottom of the original structure, and its limit is, in places, well marked. The hollow thus formed contained a bed of ashes of irregular thickness, in which were calcined human bones, fragments of a pot, a flint point, lumps of burnt earth of various colors, and occasional burnt stones. The ashy material extended out to the under side of the sod on the northwest and southeast, and in the hollow above was a pinkish, ashy earth, filling the remainder of the hollow, and forming the summit of the structure. The structure, therefore, as seen in

section northwest to southeast lies in a saucer-shaped stratum, bearing some resemblance to an Altar mound.

Beneath the ash-bed, near the center, in the brown ash and raw clay, or hardpan, were 4 fragmentary, small bones, apparently of the arm, and a long bone, untouched by fire, while just above in the ash-bed were fragments of a calcined femur, and from here northwest, for several feet, were similar fragments, for the most part burnt to an ebony black, but sometimes white. The unburnt bones were removed carefully, the 4 arm bones enveloped in the stiff clay matrix in which they lay, as they were too badly decayed to remove otherwise. Moistened earth or clay seems to have been applied above the burnt bones during the burning process, as many of the baked earth fragments retain casts of the bones on their blackened surface. These are blackened part way through, and the upper surface burnt to a red, yellow, or blue color. The whole mass of the bed appeared to have been subsequently broken up and stirred about, mixing the burnt clay and bones indiscriminately together. Many of the burnt clay lumps were retained, and other bits of raw clay are of interest, as bearing marks of the instrument used by these people in excavating the mortuary hollow. South of the unburnt bones, but in the ash of the ash-bed, was, perhaps, the greater part of a crushed pot. This was removed in the mass as found, and, therefore, was not examined before sending to the museum, but it appeared to have been bowl-shaped, slightly constricted at the neck, with a half-flaring lip. The material is a blackish paste, tempered with crushed quartz or chert, and burnt to a light red. The ornamentation consists of fingernail imprints applied to the exterior, in a series of horizontal marks, arranged at intervals of less than half an inch in vertical columns and separated one from another by a space of an inch or a little less. The interior surface is decorated where the lip turns outward, merely by a double series of the same imprints carried horizontally around. Pieces of the pot were scattered in the ash for a space on all sides and all were very fragile, crumbling readily.

Calcined fragments of crania were found at three points. These are parts of two, or possibly three skulls, north and northwest of the pot. At the north corner of the ash-bed, the skull fragments are those of a child. The fragments are, in many cases, curiously warped by the great heat to which they were subjected. Parts of this skull were widely scattered, but we have succeeded in identifying fragments of frontal and other parts of skull cap, of inferior maxillary, and of a temporal bone.

Near the skull was a little round ball of raw clay. There were also fragments of an adult skull and fragments of a remarkably thick, narrow, and low adult frontal.

From S. W. to N. E., across sections 1 and 3, extended fragments of two charred logs, one, apparently of black oak, being the outer log. These lay at the top of one side of the incinerary hollow,

and on another side two similar timbers extended at a right angle, suggesting the corner of some rectangular structure of wood, but they, perhaps, are merely embers from the fire, tossed aside at the close of the ceremony.

THE ELONGATE OR WALL-LIKE MOUNDS

The elongate mounds at Portage are found only along the crest of the eastern ridge, which extends in a generally north and south direction, the Portage ravine lying on the west and the Galena River sweeping along the eastern base.

The elevation of this ridge is a little less than that of the western ridge, or from 105 to 130 ft. At the northern end and near the central part it rises some 15 ft. above the general level, and further south it is some lower and somewhat detached.

There are 13 of the long mounds, 11 of which are on the higher part of the ridge and are well preserved, and two, not so well preserved, are on the lower part with 4 small, ill-defined conical mounds. They extend in a nearly continuous embankment of earth all along the summit and vary very little in size. They are not always constructed on a level surface, but conform more or less to the natural slope of the locality.

It is, perhaps, merely an accident that the number of conical mounds in the Portage group is exactly twice the number of the long mounds, but it is peculiar, and it is a suggestive fact also that, as previously stated, all of the conical mounds, with the exception of the 4 small, ill-defined ones, lie on the other ridge.

With the continued good will of the owner of the property, Mr. John Hess, 5 of these mounds were examined, Nos. 23, 24, 25, 26, and 27, and substantially the same method of construction and interment found in all, although there were variations in minor details. They were divided for excavation transversely in sections 3 ft. wide, and thoroughly examined from end to end, and the following abstract of a report of the exploration at Mound 24 is presented as typical of all, supplemented by such special features as constituted variations in the type.

MOUND 24

Mound 24 lay on a surface sloping slightly to the southwest, between a smaller mound on the south, No. 23, and one of about the same size north, No. 25. The sections in this mound were subdivided into blocks, for the sake of greater accuracy in designating finds on the chart, a precaution which the paucity of the finds rendered unnecessary in later work.

The mound extended 71 ft. 10 in. N. N. W. to S. S. E., conforming to the trend of the ridge at that point, and had an average width

20 ft. at its base. Conforming to the surface slope of the hill its southern end was 1 ft. 4 in. lower than the northern end, and the central part, spanning the head of a small lateral ravine, was correspondingly depressed a few inches. The bulk or mass of the structure remained about the same throughout, about 2 ft. high, except at the northern end, where it gradually flattened out, so as to retain a symmetrical relation to the lower end.

In the whole mass of earth there was but one burial, and that consisted of but portions of one skeleton, lying in an ashy layer or bed, which had extended, almost barren of interest, through the structure, longitudinally for 31 ft.

Work had progressed 4 ft. beyond the center of the mound, and we were getting discouraged. There were no indications of a burial, and we had in mind the failure of the Bureau of Ethnology to find burials in this type of mound. Suddenly the mattock struck a skull, and we knew that we had opened a new chapter in the achæology of the district.

The burial was, however, well marked, had we known it, for it was bounded by a nearly square piece of limestone, nearly in contact with the skull, 3 by 3 by $4\frac{1}{2}$ in., on the E. S. E., and by a "foot stone," 7 by 4 by $\frac{1}{2}$ in., 3 ft. N. N. W. from that. The latter stone was set on edge in the ash and clay.

The skull lay near the top of the ash-bed, at a depth of 1 ft. 9 in. The position was upside down with the face toward the southwest and resting on the left frontal and parietal. Both superior and inferior maxillary were absent, and the mattock stroke injured slightly the right temporal. The right molar was also missing. The skull was filled solidly with earth, but was not crushed and seemed to be a fine, normal, well-shaped skull, but perhaps rather small.

The bones in the north wall were portions of the skeleton in much apparent disorder. They comprise parts of a tibia and of a femur. Under the femur was part of a badly decayed pelvis and other fragments of nearly decomposed bone, perhaps all forming originally a bundle from which the skull had rolled and overturned. A few inches east of the bones was a small piece of common stone.

All of the bones were of slight build and seem to have been more or less injured when interred. To the right of the burial, but just beneath the top-soil lay a nearly rectangular piece of limestone, 1 ft. 4 in. long, and 4 in. square. The north end lay 5 in. beneath the surface and the south end but $2\frac{1}{2}$ in. It was tilted up slightly, and corner-wise. The southern is diagonally, and the northern end roughly, square, with a small piece detached and earth in the interstice. There was no trace of paint or shaping about the stone, but it is nevertheless not improbable that it marked the interment below, having fallen from an originally upright position, with the northern end for a base, buried slightly in the completed surface.

Aside from this one burial the mound did not render much of value. Nothing was buried with the body, but articles of some little comparative interest were found at other points.



MOUND 44 OF THE AIKEN GROUP IN ILLINOIS

THE AIKEN GROUP OF EARTHWORKS

In 1898 a preliminary survey of this group was made. The group extends along the cliff bordering the Mississippi and down a long slope toward the valley of Smallpox Creek. The area covered is about a mile in length, extending through the east half of Section 1, of Town 1, west, 27 north, and across the fourth meridian into sections 5 and 8, of Town 1, east, 27 north.

There are 51 mounds comprised within the group, and without doubt a few others have been destroyed by cultivation of the land on which they stood. Of these mounds 12 are conical, 38 are long, wall-like structures, and one is an effigy. The group also comprises an earth ellipse, or hut-ring, and two circular depressions.

MOUND 45

Interest naturally centered about the effigy. The form of this mound suggests the bow and arrow to some and to others the bird with outstretched wings. The latter is most likely the correct interpretation. A small growth of oak covers the mound and adjacent

land, otherwise a good photograph of the structure could have been secured from the hill on the east. Earth or wash from the hill slope seems to have filled in slowly about the tip of the northeast wing of the figure.

Six feet in from the base, at the angle of the wing and neck, the accumulation of top-soil was 7 or 8 in. deep. This is where the more moderate slope of the upper part begins. Elsewhere the depth of the top-soil is less—3 to 4 in.—on top, and 4 to 6 in. along the base.

Three feet farther beyond this angle, or 9 ft. in from the base, was a small, thin potsherd, a black paste burnt red on both faces, with smooth finish and void of decoration. It lay at a depth of but 3 in., or just beneath the sod. Near this were two smaller sherds of a thicker ware at a depth of 8 in.

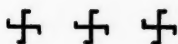
There was found in this mound a central ash-bed, or bed of mixed ash and earth, similar to that found in the simple long or conical tumuli of the district, and through the top of this at a depth of 18 in., or deeper, bits of flint or occasional pebbles were scattered in the usual manner. Samples of the ash-bed were retained, as well as the flint chips, potsherds, etc. A piece of limestone lay at a depth of 19 in., under the first potsherds mentioned.

The bottom of the old opening was found at a depth of 3 ft. 7 in. It had penetrated 7 in. into the undisturbed "hardpan" beneath the structure, on which the central ash-bed rests, and this makes it quite evident that nothing was found at the center by the original explorers. Mr. Hugh A. White, who lives close by and was my volunteer assistant, confirms this also, as he was present during the former work.

Just southeast of the center, at a depth of 22 in., in the ash-bed, was a speck of charcoal.

W. B. NICKERSON.

Chicago, Ill.



ROMAN CAMP AT RIBCHESTER, ENGLAND.—During 3 months' work at Ribchester, Mr. Thomas May has followed the whole periphery of the camp there, finding the *prætorium* and the foundations of the ramparts. The remains of the forum he discovered in a private house. Outside the wall was a curious kiln, with an entrance through the thickness of the main wall. This may have been used for drying grain, or even for cremation. It is similar to a kiln found outside the Roman camp of Barr Hill, Scotland. It is 6 by 4 ft. at the top and 5 by 4 ft. at the base. The foundations of the great wall rested upon 3 ft. of clay, beneath which was a layer of oak shingles. Still lower was a burnt layer, probably the traces of an older fort of wood. Some I century Roman pottery was found.



RUINS IN THE CENTRAL PART OF KHARA-KHOJA, TURFAN

ARCHAEOLOGY IN THE CENTER OF ASIA

DURING the last few years the center of Asia has proved one of the most fruitful regions for archaeological research. No great works of art, or splendid palaces comparable to those of Mesopotamia and Egypt have been found; but there has been a wonderful unearthing of manuscripts, paintings, and household articles, which greatly broaden our knowledge of oriental civilization, and of the various people, who, under the name of "barbarians," played so large a part in the unmaking of the ancient nations of Europe, and the making of those of to-day. Aside from the Pampelly Expedition to Russian Turkestan, of which the final results are shortly to be published by the Carnegie Institution of Washington, two other expeditions are of special significance. One is that of Grunwedel and Le Coq to Turfan and the north side of the Lop Basin in Chinese Turkestan, under the auspices of the German government. The other is that of Stein to the south side of the Lop Basin, under the auspices of the government of India. In both cases the archaeologists have now completed a second visit to Central Asia, and are engaged in preparing the results for publication.

The chief work of the Germans was done in Turfan, a small basin lying about 200 miles north of the famous lake of Lop-Nor. Here, in the very midst of the largest of the continents, lies a basin whose floor

is below sea-level, while the mountains around it tower to heights of over 12,000 ft. Almost no rain falls in Turfan itself, but streams from the encircling mountains support some 50,000 souls. Formerly the population appears to have been much more dense, to judge from the great number and wide distribution of the ruins which everywhere dot the plain, or lie in the valleys of the Fire Mountains, a little range running east and west across the middle of the basin. The majority of the ruins are composed of adobe brick, which sometimes is found in the form of huge cubes over 2 ft. in diameter. Wood appears to have been almost as scarce in the past as in the present, because of the lack of water. Kara Khoja, the chief ruin, is surrounded by a thick adobe wall, about 60 ft. high and 2,000 ft. square. Within may be seen traces of many small buildings, and the comparatively well preserved ruins of a number of religious and public structures of large dimensions. Outside Kara Khoja there are numerous ruins of a similar sort. There are also several monasteries, or lamaseries, composed of great numbers of rooms, many of which are excavated in the precipitous alluvial banks of the small streams which traverse the Fire Mountains and water the plain upon which they debouche.

From Turfan, Kucha, and one, or two less important regions Le Coq and his coadjutors have brought to Germany over 230 cases filled with all manner of materials illustrating the ancient life of the Iranian and Turki people of Central Asia. In Turfan, unlike Russian Turkestan and the Lop basin, no evidences of extreme antiquity have as yet come to light. Most of the material does not date back further than the VIII century of our era. Its significance lies chiefly in the great variety of languages in which manuscripts have been found, and in the remarkable evidence as to the spread of artistic and religious ideas from India and western Asia, through Chinese Turkestan to the Far East.

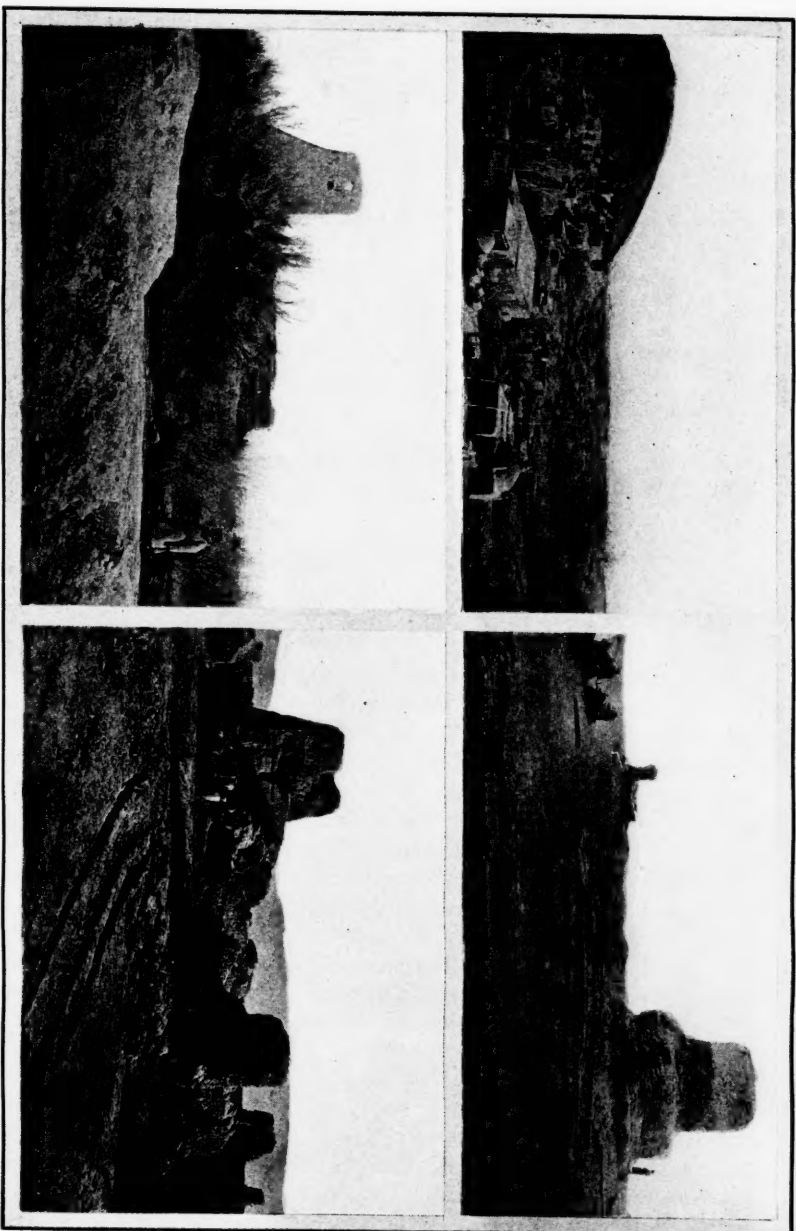
In a recent number of *Zeitschrift fur Ethnologie*, Doctor Le Coq speaks as follows of the ruins of Kara Khoja, or Idikut Shari: "The most notable building is an adobe pyramid about 22 meters square. Each of 3 terraces shows on each side 6 niches, which formerly contained richly painted and gilded figures of Buddha. The structure lies near the east door and was probably the mausoleum of a Buddhist priest or king. In the immediate neighborhood, southwest from this building, are found the ruins of a great monastery, whose cells are still fairly well preserved. Syriac inscriptions on the walls and the discovery of fragments of Syriac manuscripts lead to the conclusion, which was later confirmed, that there stood here a monastery of Christian (Nestorian) monks. Finally, in the center of the city we found a great structure, which I might describe as a system of 3 enormous halls with vaulted chambers on the sides. On the west wall of the northern hall is found a large and rather badly damaged painting of a Manichæan high priest in full regalia, surrounded by his white-clad

priests. Inscriptions in Uighur and Manichæan script give the names of the minor, smaller priests, while many signs indicate that the more than life-size picture of a high priest represents Mani himself, the founder of the religion. This is the only Manichæan wall-painting which is known as yet, and it is certainly the most valuable object of my collection.

"In this old capital of the Turkish Uighurs, it appears that Christians, Buddhists, and Manichæans lived together in amity. The leading place was certainly taken by the Manichæans, since early Arabic inscriptions tell us that the 'khan' of the Uighurs was a Manichæan. The Chinese did not look favorably upon the introduction of a new religion, and from their annals it appears that they twice made an attempt to suppress it, once in the IX century and once in the XII century. Moreover we found one of the above-mentioned arched chambers wholly filled with corpses, still clad, and lying confusedly one upon another. By their garments they were recognizable as the bodies of Buddhist monks. The wrath of the destroyer seems to have been directed especially against Buddhism, since, while a large number of Christian and Manichæan manuscripts were found in comparatively good condition, the extremely numerous Buddhist texts were for the most part torn into little fragments. Beside the above-mentioned manuscripts we found also a great many texts in the Uighur script and speech, some Chinese inscriptions upon stone, and a number of Buddhist figures in bronze, wood, and ivory, all probably belonging to the VIII or IX century of our era."

In the monastic establishments in and on the sides of the mountain valleys innumerable pictures were found painted upon the walls, and with them were inscriptions in Central Asiatic Brahmi and Sanskrit. A large number of the pictures represent Buddha, but there were some representing mythological personages, while others present "portraits of monks, princes, and devotees from East and West, among whom the most notable are certain blue or green-eyed and brown-haired individuals, one of whom wears the old Persian cap of the nobility." These pictures are thought by Le Coq to possess the greatest importance, not only because of their high degree of artistic excellence, considering their early date—the VIII or IX century of our era—but also because they furnish the connecting link between the Gandhara art of Northwestern India, and the religious art of China and Japan, which has hitherto been supposed to be autochthonous.

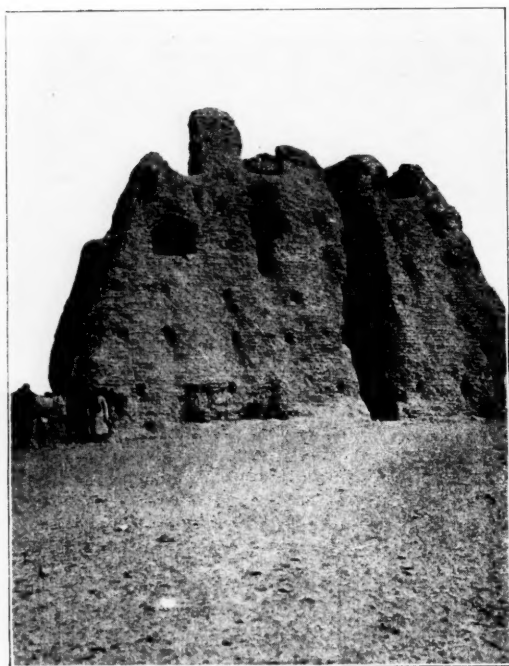
Most of the manuscripts found at Turfan are written upon paper, but some are on finely dressed white leather, and others upon wood. They are in 10 different languages, Nagari, Central Asian Brahmi, Tibetan, Chinese, Tangut, Syriac, an unknown tongue which appears to be a curious variation of Syriac, Manichæan, Uighur, and primitive Turkish. The manuscripts are now being deciphered and are attracting the deepest interest among philologists, who see in them not only clues to many linguistic problems, but a number of most important new



RUINS IN CENTRAL ASIA

Village of Tuyok, Turfan, showing the famous Mohammedan Shrine
Deserted Hamlet of Kumush, on road from Turfan to the Lop Basin

Buddhist Ruins at Enderreh, dating from VIII century A. D.
Ruins of Central Part of Kara Khujia, Turfan



RUINS OF BUDDHIST SHRINE, NEAR LEMJIN, EAST OF TURFAN

problems. It is most remarkable that here in a provincial town of far western China abundant manuscripts should have been collected in languages spoken in the remotest parts of the continent. Turfan must have been in close touch not only with the countries immediately around it, but with India, Persia, and even far distant Syria, whence Nestorian Christians are known to have penetrated to China. They brought with them their literature, for Le Coq found one Syriac fragment containing part of the Gospel of Luke, while another contained part of the Letter to the Galatians, and the legend of the Finding of the Cross by the Empress Helena. In the VIII and IX centuries of our era there must have been a degree of civilization and communication in the desert regions of Central Asia vastly in advance of anything which now exists.

Turning now from the north to the south side of the great Lop Basin, which lies just north of Tibet, we find that the remarkable discoveries of Doctor Stein supplement and confirm those of the Germans at Turfan. Further examination of the numerous sand-buried ruins in the neighborhood of Khotan and eastward, gives added certainty that near the beginning of the Christian era an Indian language and an Indian art tempered by Greek and Scythian influence had come across the Himalaya and Kwen Lun Mountains and established itself



SAND-BURIED RUIN AT NIYA, SOUTH OF THE LOP BASIN.
ABANDONED BEFORE 300 A. D.

in the Lop Basin. At the same time Buddhism had been introduced. Evidences of the all-important part which it played in the life of the people are found in the fact that almost all the sites excavated by Stein have lamaseries as their most essential structures.

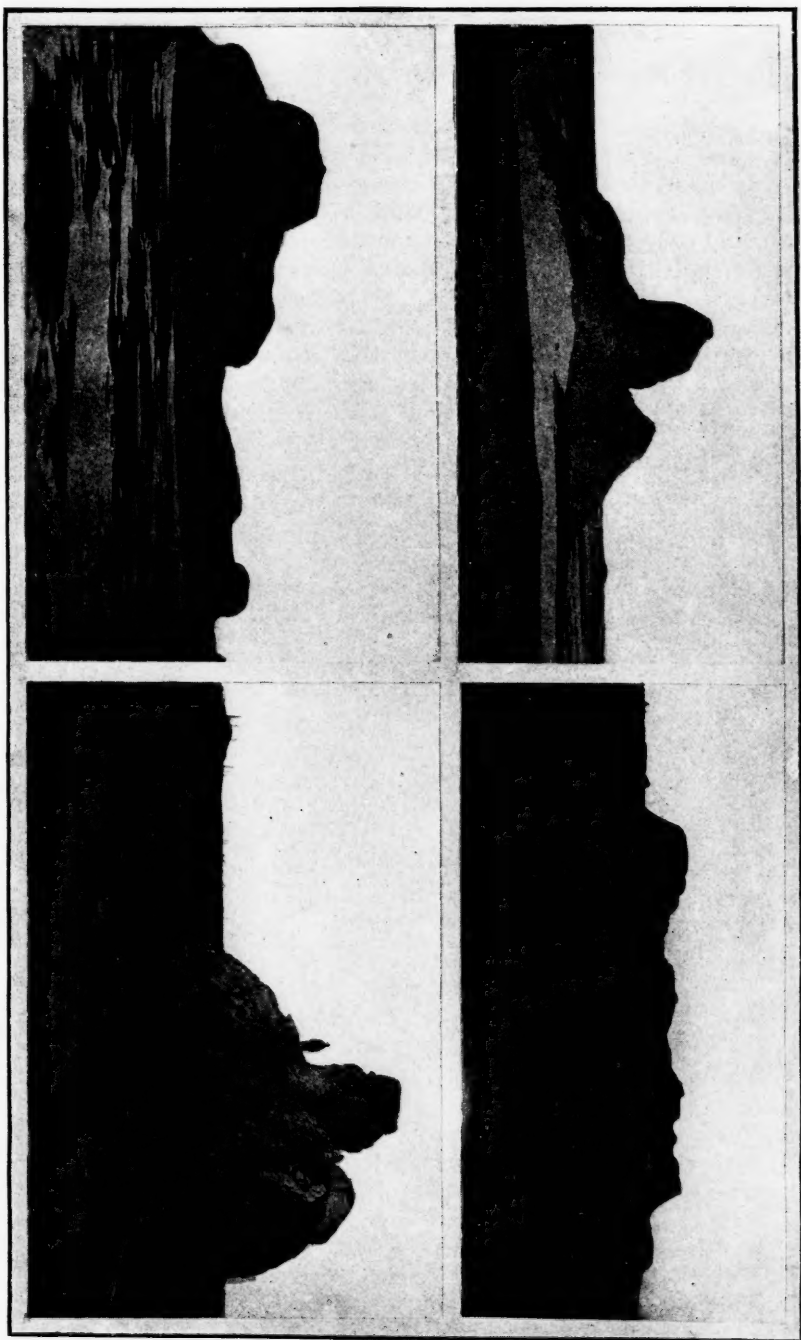
The Buddhist or pre-Mohammedan ruins are of two distinct dates. At site after site there is evidence of an earlier occupation, which came to an end in the latter half of the III century of our era, and of a later occupation, which apparently lasted only a short time and came to an end about the close of the VIII century. The most interesting relics of the first period consist of documents upon wood in the so-called Kharoshthi language and in Sanskrit. Chinese documents are also found written upon paper, and in some places, as at Khadalik, Sanskrit manuscripts have been recovered written upon birch bark. Many of the documents are parts of the Buddhist religious books, but a fairly large number, embracing practically all of those written upon wood, are ordinary accounts of everyday matters, such as commercial transactions, leases, official orders, accounts, and reports.* The most important relics of the later period are also manuscripts upon wood and paper. There is a change in language, however. Chinese is still the same, but the Kharoshthi tongue has disappeared. In its place there is an Iranian tongue, which has not yet been deciphered. It evidently was the common language of the people, since it is referred to by Chinese officials as the "barbarian language." For instance, in one place mention is made of a certain petition to the local authorities, which had been translated from the "barbarian language"

*See illustration in RECORDS OF THE PAST, Vol. VI, p. 330.

into Chinese. In addition to these two languages a good deal of Tibetan of an archaic type is found; and more or less Sanskrit. Evidently here, too, as in Turfan, influences from widely separated regions were at work. This is made especially evident from the fact that among the dozens of intact clay seals which Stein found upon wooden documents of the III century, "impressions from Græco-Roman intaglios prevail. Their appearance, side by side with Chinese seals, seems to symbolize, as it were, the part played by *Scythia extra Imæon* in the early cultural interchange between the classical West and the Far East."

At Miran, in the eastern part of Chinese Turkestan, near the Lake of Lop-Nor, Stein carried on excavations in the recently discovered ruins. Among other things he found in the old castle nearly a thousand Tibetan documents, dating from the time of the Tibetan invasion in the VIII. century. "Of far wider interest and importance" than these, he goes on to say, "are the art remains which emerged from the debris mounds of the Buddhist shrines. * * * These must have been in ruins 4 or 5 centuries before the Tibetan occupation. In one of them there came to light colossal stucco reliefs showing the closest relation to Græco-Buddhist sculpture of the first centuries of our era. The influence of classical art is reflected with surprising directness in the fine frescoes which cover what remains of the walls of two circular temples, enclosing *stupas* [shrines of adobe]. The main paintings, which illustrate scenes of Buddhist legend or worship, are remarkable for clever adaptation of classical forms to Indian subjects and ideas. But even more curious are the figures represented in the elaborate fresco dados. They are so thoroughly Western in conception and treatment that one would expect them rather on the walls of some Roman villa than in Buddhist sanctuaries on the very confines of China. * * * Kharoshthi inscriptions painted by the side of the frescoes, and pieces of silk bearing legends in the same script, indicate the III century A. D., as the approximate period when these shrines were deserted."

It is noticeable that the older parts of the ruins excavated by Stein, on the south side of the Lop Basin, are decidedly more ancient than those at Turfan. Between the two regions on the great delta of the Tarim River to the north of Miran and south of Turfan, Stein finds still older relics in the shape of flints, stone implements and pottery of primitive types. The discoveries of Stein confirm those of Hedin and of the present writer. It appears that before the time of any of the structural ruins found in Central Asia, a large triangular tract, measuring a hundred miles on a side, was inhabited at the lower end of the Tarim River. To-day much of the region is barren sand with no trace of living vegetation. The river still supports a considerable belt of poplars and reeds along its whole course, but the water is so saline that it cannot be used for irrigation, and the number of inhabitants is only a few hundred, most of whom are fishermen or shepherds.



Buddhist Stupa at Miran
Buddhist Lamasery at Miran

RUINS IN THE LOP BASIN

The Fort at Miran
Lamasery (left) and Stupa (right) at Sulan, North of Lop-Nor

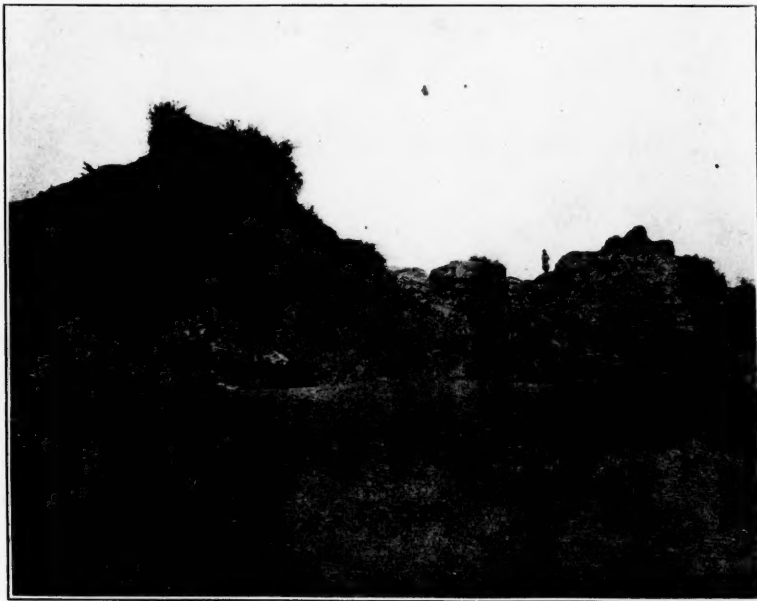
The most notable of Stein's recent discoveries was made near Sa-Chow, or Tung-Hwang, about 300 miles east of the regions which have just been described, and not far from the borders of China Proper. Five days' journey west of Tung-Hwang he came upon the watch stations, sectional headquarters, magazines, and portions of the rampart of an ancient line of defense, which he followed eastward for 140 miles. In describing this in the *Geographical Journal* for November, 1907, he says: "From the Chinese records, mostly on wood or bamboo, which the excavation of almost every ruin yielded in plenty, I was soon able to make certain that this frontier line was constructed at the close of the II century B. C., under the Emperor Wu-li, who commenced Chinese expansion into Central Asia. It appears to have remained regularly garrisoned down to the middle of the II century A. D. Dated documents are particularly numerous from 98 B. C. to about 25 A. D., the time when a period of internal and external troubles came to an end with the advent of the II Han dynasty. There can be no doubt that the purpose of the *limes* was to guard the territory south of the Suli-ho River, which was indispensable as a base and passage for the Chinese military forces, political missions, etc., sent to extend and consolidate Chinese influence in the Tarim [Lop] Basin, and farther west. The enemy, whose attacks had to be warded off, were the Hsiong-nu, the ancestors of those Huns who some centuries later threatened Rome and Byzance."

The west end of the wall bends around to the southwest and rests "on extensive salt marshes and equally impassable mountain-like ranges of drift sand." Eastward it extends to the oasis of An-shi, whence "it is likely to have extended to the present Kia-yu-kuan gate of the 'Great Wall,' " of which it appears to have been the ancient extension at the time when the deserts of Asia were less extensive than they now are.

The wall was built on a fairly large scale, for "one of the best preserved ruins is that of an imposing magazine forming a solid block of halls nearly 500 ft. long." Relics are found of the days when, as is well known, one of the most important of all trade routes between the Far East and the West passed through this now almost impassable region. They are in "the form of silk pieces inscribed with Indian, Brahmi, and Kharoshthi." In addition to these Stein found a number of letters carefully fastened, and containing writing of which the script is Aramaic, although the language may be Iranian. "Most of these turned up along with Chinese records of the time of Christ. Can they have been left behind by early traders from Persia or Western Turkestan coming for the silk of the distant Seres?"

In considering the archæology and history of ancient times in Central Asia no problem is more important than that of the possible changes in physical conditions which may have taken place, and which may have been the cause of the abandonment of once prosperous districts. As the writer has shown in *The Pulse of Asia*, there is reason to

believe that at the time of Christ this part of the world was much better watered than is now the case. A few centuries later, or roughly, from the III to the VI or VII centuries, there was a time of rapidly increasing aridity, followed by a few centuries of greater rainfall, or at least of more favorable climatic conditions of some sort. It is interesting to note that the time of extreme aridity agrees perfectly with the time of the abandonment of the older ruins investigated by Stein, and with the period of about 5 centuries, when Chinese rule in Turkestan gave place to chaos and depopulation. At the same time Turfan also appears to have been in a very low state, as would be expected if, as there is reason to believe, the climate were even drier than it now is. When we come to the period from the VII to the IX cen-



BUDDHIST RUINS AT ENDEREH, DATING FROM ABOUT THE
END OF THE VIII CENTURY

turies it is again perhaps not without significance that both in the Lop Basin and still more in Turfan, there is a great revival of civilization, and a very marked increase in population. It appears as if the increase in the habitability of the country by reason of the decreasing aridity gave a chance for progress not only in population, but in all the various lines which go to make up civilization. The Tibetan invasion in the latter part of the VIII century interrupted progress in the southern part of the Lop Basin, but not, apparently, in the northern part, or in Turfan.

There is doubtless danger of assigning too great an influence to purely physical causes, but nevertheless it is worth while to note that



MOHAMMEDAN RUINS AT ENDEREH

the history of the Lop Basin at this time is what would be expected from a knowledge of the climatic changes which have occurred there. In the Tian Shan plateau there is evidence that during a dry, warm period, presumably between the II and VII centuries of our era, agriculture was practised at a much higher elevation than is now the case, and the capacity of the plateau to support population was thereby correspondingly increased. It is reasonable to suppose that the same was true on a much larger scale in cold Tibet. If then, after a period of comparative warmth and prosperity, the country became colder and less habitable in the VII and VIII centuries, the people would suffer from the failure of crops. If the suffering became great, wars would almost inevitably break out, and the tendency would be to invade and conquer the southern part of the Lop Basin, the nearest available region, where there were opportunities for plunder, or for settlement.

In reference to the newly discovered portion of the Great Wall, Doctor Stein makes some interesting and suggestive comments on the subject of changes of climate. "Dessication within historical times," he says, "on which Mr. Huntington's recent investigations in Turkestan have thrown so much light, has left quite as distinct traces in the Tun-huang [Tung-Hwang] region as throughout the southern part of the Tarim [Lop] Basin. We could scarcely wish for a more accurate gauge by which to estimate the extent of the physical change that has thus taken place in this part of Asia within exact chronological limits than this border-line, drawn through the desert by Chinese engineers in the closing years of the II century B. C. The ground it traverses has remained wholly untouched by the manifold and often



GRAVE, MARKED BY CIRCLES OF POPLAR BILLETS, NEAR SULAN

complex factors connected with human activity, in the shape of irrigation, etc., which affect inhabited areas, and there is plenty of evidence to show that those who laid down the line, selected the positions for watch-stations, etc., had been guided by a sharp eye for all surface features and their practical advantages. By closely studying their work a great mass of important observations could be gathered. In the many places where the flanks of wall sections rested on marshes or small lakes, it [is] easy to ascertain the fall in the water level, distinctive enough, but nowhere excessive. The materials which [have] been used in the construction of the *agger*, a rampart of gravel or clay cleverly strengthened by regular layers of fascines, [afford] tangible evidence as to the vegetation then (but not now) to be found along the various depressions."

Stein goes so far as to suggest that dessication may proceed to still greater extremes than those of to-day. Everywhere in the vicinity of the oasis of Tung-Hwang near the eastern end of the newly discovered wall, he was "able to observe the far-reaching effects which the devastation and loss of population attending the last great Moham-medan rebellion [which lasted for 10 or 12 years beginning in 1863] have had on the cultivated area. Taking into account the prevailing physical conditions, it appears improbable that the lands abandoned to the desert on the outskirts of the oasis will ever fully be recovered again for human occupation. Again and again I came upon such ruins of recent date which drift-sand is steadily invading. There is more than one 'old site' in formation here which might well be earmarked—for the archæologist, say, of 4000 A. D."

ELLSWORTH HUNTINGTON.

New Haven, Conn.

THEODORE FRANCIS WRIGHT

THEODORE FRANCIS WRIGHT, late Hon. General Secretary of the Palestine Exploration Fund for the United States, and regular contributor to RECORDS OF THE PAST, was born in Boston, Mass., August 3, 1845. He graduated from Harvard University in 1866. In the second year of his college life, 1864, he answered the call of his country for the defense of the Union, and served as First Lieutenant in the 108th Regiment of U. S. Colored Infantry for a term of 14 months, when, the war having ended, he resigned, and was honorably discharged, resuming his studies at the University. Upon his graduation he attended the New Church Theological School and was ordained into its ministry in April, 1869. Mr. Wright became pastor of a society in Bridgewater, Mass., where he remained 20 years. He became a frequent contributor to the pages of *The New Jerusalem Magazine*, the monthly periodical of the church, and in 1880, its editor, and in 1893, the editor-in-chief of its successor, *The New Church Review*, continuing to hold this position to the end of his life.

In 1884 Mr. Wright was called to the Professorship of Homilectics and Pastoral Care in the Theological School and in 1889, removing to Cambridge, he became Dean of the School, and officiated as minister in its Chapel. When by residence he was again in close touch with the University, he took a course in Philosophy for the degree of Ph. D., which was conferred upon him at Commencement, 1891, when he was also elected a member of the Phi Beta Kappa Society.

Of Doctor Wright's life in Cambridge, Dean Hodges, of the Episcopal Theological School, has paid this tribute: "Dr. Theodore Wright was a citizen of high type. He had his own immediate professional work to do, and, no doubt, it was sufficiently absorbing and exacting; but he found time and energy for the service of the community. He was the vice-president of the Associated Charities, and a member of the executive committee of the organization of the clergy for the annual No-License campaign. And in each of these positions he was eminently active and useful. * * * Such men as Dean Wright are the salvation of the community—they are essential to the progress of our public life. They are setting forward the coming of the kingdom of heaven."

In 1887 Doctor Wright made a tour of Palestine, and spent two months in Jerusalem. His work for the Palestine Exploration Fund began in May, 1890, when he received his appointment as Hon. Gen. Secretary for the United States and Lecturer for the Fund. His interest in the work of the Fund was very deep. He gave time and thought to advance a wider interest in its work. He delivered many

lectures to inform the public as to what had been accomplished. He received and forwarded subscriptions and acted as agent to sell its publications. While he was closely engaged with his regular duties he found time daily, as a work of love, to answer correspondents, considering this his recreation from other duties.

Doctor Wright had three times attended the Annual Meetings of the Fund, in London, meeting the members of the Executive Committee, and had the honor of addressing the Society in 1903, the Bishop of Salisbury presiding, as to the interest of American scholars not only in the careful work done by the Palestine Exploration Fund, but in all thorough archæological work wherever it might be undertaken. At the Columbian Exposition, in Chicago, Doctor Wright spent 4 months in charge of the exhibit of the Fund, and again was at the St. Louis Exposition, giving earnest effort to extend knowledge of the Society's work. He counted whatever he could do toward the advancement of the work of exploration in Palestine as not only done to forward most interesting archæological knowledge, but as calculated to furnish valuable confirmation of the historical portions of the Sacred Scriptures. It was, therefore, out of his love for the Holy Word as the Word of God that he labored with so much of heart and mind and strength to help to establish incontrovertibly its historical truth as an additional basis for faith.

Doctor Wright was a member of the American Oriental Society, the Society of Biblical Literature and Exegesis, and the Archæological Institute of America. He was the author of 4 books, entitled, respectively, *Life Eternal*, *Realities of Heaven*, *The Human and Its Relation to the Divine*, and *The Spiritual Exodus*.

Doctor Wright was of an intensely active nature, and, impelled on by the love of performing useful work, he had overtaxed himself, and too late loosened the harness which he had valiantly put on in the service of his fellowmen, so that, although he was upon the Mediterranean Sea for a season of rest and travel in Egypt and Palestine, the call came, and he expired suddenly on November 13, 1907, and entered into his rest with his Lord.

HORACE W. WRIGHT.



SKELETON OF A ROMAN HORSE.—During excavations on an old Roman military camp at Newstead, near Melrose, Scotland, numerous bones were found in refuse pits. From among them almost the whole skeleton of a horse was reconstructed. This has been set up and is on exhibit in the Small Mammal Hall of the Royal Scottish Museum at Edinburgh.

ADDITIONS TO THE ART INSTITUTE OF CHICAGO

OPPORTUNITY will ever be the collector's god in the moment that tries his soul. An ancient sculptor modeled that elusive deity advancing on winged feet and balancing the bar of a pair of scales on a razor's edge. Many a connoisseur has entered an auction-room to glance at engravings and emerged from it with a dainty porcelain shepherdess. The Antiquarians of the Art Institute of Chicago were, hitherto, collectors of everything but pictures. They have suddenly, however, enriched Chicago with a Christ in the Garden, by Lucas Cranach. There is surely some little secret behind this departure from the trodden path, some story such as art fanciers delight in, of bankrupt church or castle attic. We shall only dare betray that the fair collectors were well advised by experts of European authority as to the authenticity of the work in question, and the wisdom of its purchase. The wider public, which cares nothing for the museum man's categories, is the manifest gainer by it.

German art has hitherto glared principally by its absence in the Art Institute's galleries of architecture, sculpture, and painting. The Charles L. Hutchinson collection of old masters, which was dedicated there the other day, is composed almost entirely of Dutch paintings. They are supplemented, a trifle oddly, by one old Flemish portrait, a Velasquez or two, one splendid Rubens, one Brusasorci, and one capital Lebrun. The trustees of the Institute evidently feel the need of putting the world's art more broadly before the Chicago public. They have recently made their obeisance to Preraphaelite Italian art by their purchase of the splendid copies of two Botticelli frescoes, and to Spanish by the far more costly purchase of El Greco's Assumption, which is now beautifully displayed with the new Lucas Cranach in the Antiquarians' Room. Until the present year, on the other hand, neither old German art nor modern German art have been conspicuously represented on the Lake Front. It was time to change this. Mr. von Frantzius, the lender of the "Salome," by Franz Stuck, in the south wing of the Art Institute, and the Antiquarians with this new purchase of a Cranach picture are initiating a Germanic movement, which time is bound to broaden and deepen.

Albert Dürer, the German, was an incomparable genius besides. He belongs to the world. Raphael put Dürer's portrait in the School of Athens. Dürer's Nuremberg was a Renaissance capital. The Protestant citizen was a Catholic painter. In Lucas Cranach the Elder, his contemporary, we have the Teutonic artist undisguised. The Gothic painter's brush has felt the hardening effect of Luther

and Lutheran Wittenberg. We know what the German reformer thought of Leo the Tenth's Rome! A weaker character than Cranach's would have succumbed where Luther was Pope. With no altars to magnify, Cranach became a printer and engraver, painted portraits of court and clergy, and courted public office. He was burgomaster of Wittenberg 6 years.



NIGHT IN THE GARDEN OF GETHSEMANE, FROM A PAINTING
BY CRANACH, THE ELDER

Calvin would not have tolerated Cranach's nude Lucretias and Venuses. Luther endured them. They are deliciously German in their classic disguise. A French critic raises the indiscreet question: Who were these ladies who consented to pose for the painter in austere Protestant Wittenberg? It is clear that Lucas Müller, of Cranach,

had some customers of unpuritanical ideas. One may most safely look for them among the princes and princesses whose esteem the artist won. Cranach has a disconcerting way of utilizing his observations at court. He has left portraits of two Saxon princesses with queer, slashed linen gloves on. The Empress Helena wears similar gloves in one of his sacred pictures. Elsewhere he dresses Venus in a Saxon princess' felt hat and dog-collar necklace. His portraits of Luther and Melanchthon, in their ecclesiastical caps and gowns, are familiar enough. There is an engraving of the Dresden Luther in my German Bible. The lineaments and dress of a "Young Patrician," which was temporarily exhibited in Berlin, are curiously akin to it; the Berlin "patrician" is, if we mistake not, a young Luther in a moustache. Cranach may have executed it at the Junker Georg period. The crown of all Cranach's, however, is the master's grave, white-bearded portrait of himself. It verily leaves Dürer and even Holbein far behind. Hans Thoma paints a man that way.

In the absence of a sitter or model, Cranach's work became singularly uneven, and is frequently incorrect. The heads are too big for the bodies that wear them. Ears and eyes are misplaced. The two sides of the face of the same personage become dissymmetrical. The proportions of the human figures are not merely eclipsed, but forgotten under red and blue draperies. The Christ in the Garden has these faults. The master's faculty for character painting, and the sheer beauty of his color redeems his sacred pictures. They remind one of the biblical scenes on stained-glass windows, where a limpid blue ground, or an effulgent ruby cloak transfigures uncouth drawing to a mystic glory.

The first peculiarity of the small picture at the Art Institute is the prodigious smoothness of its finish. Henner was about the last modern who clung to this survival of the tempera painter's technique. The next thing we note is the deep red of one sleeping disciple's gown, the contrasted blues of another's, the soft play of light and dark gray on the Lord's own tunic, the yellow robe of the hovering angel, who offers Him the cup and cross. These are not the rainbow tints of Fra Angelico, and of the old miniaturists, but the dark, translucent colors, rather, of the old English glass painters. Cranach's technique has another point in common with glass painting in the free use and exceeding fineness of its line work. The filamentous flowers and grasses, embroideries, and hair of the Gothic and Renaissance windows were engraved in the wet paint with stick or needle. Cranach's are painted with the fabulous dexterity of the peintre-graveur he was. The precision of his detail is out of all proportion to the indifferent correctness, with the almost studied incorrectness, of his head and figure drawing.

The composition of the little painting, which was probably the left-hand panel of a triptych, is two-storied. Christ kneels to the right above, among rocks and evergreen bushes, supposed to be olive

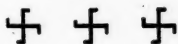
trees. The angelic cup-bearer faces him with a glance of ineffable pity. Three disciples lie asleep in the foreground below Him. The painter has lavished the resources of his pencil on the heads of these figures. John, Peter, and James are the characters intended. John's young face and hair at the left have the beauty of a woman's. The profile of the recumbent James, opposite, has a masculine beauty. Saint Peter, between, is as ugly as Cranach could paint him from life. He is one of the old, half-toothless inebriates ("*ces vieux soudards édentés*"), whose features the French miniaturists of the flamboyant Gothic period loved to portray. The sleeper's mouth hangs open, and he probably snored. All three of the disciples fit themselves to the rectangular picture as best they can, sacrificing both truth and grace in the process. No reminiscence of Italian masters troubled Cranach in this part of his painting. Nevertheless, the flaws are the master's no less than the merits. He has painted a jolly little perspective glimpse of wattled fence, soldiers, hills, and sunset, in the left upper corner of his picture, opposite the angel. It is Judas and his patrol coming to arrest the Redeemer.

Too much has been made of the argument that Cranach was a publisher of sacred books, engravings, and pictures, not necessarily or entirely the product, always, of his own hand. He has signed the Christ in the Garden with his famous mark of a minute, winged serpent, carrying a ring in its mouth. The handling of the faces and the style of the signature in this picture agree with the manner Cranach observed in his *Suffer the Little Children*, a work executed in 1538.

It is as hopeless to catch up with educational ambitions as with the pressure of traffic. Even a whole room-full of old and new German paintings at the Art Institute would be only a beginning. Old masters cannot be had in avalanches. Nevertheless, there is a reasonable method of recognizing the importance of early German art in a public gallery better than Chicago has yet recognized it. A sprinkling of German and Swiss stained glass and quaint glassware, pewter, and china, carved furniture, and embroidered linen would be something. So would a systematic collection of the German engravers in originals and facsimile, Aldegrevier and Schöngauer, Dürer and Cranach and Burgkmair, and so on down to Ludwig Richter and Max Klinger. Should such a gallery come into being, Cranach's *Christ in the Garden* will be honored as its foundation stone.

ALFRED EMERSON.

Chicago, Ill.





LOG CABIN—EXTERIOR

PIONEER HOME-MAKING IN AMERICA

IT WILL be difficult for the present generation to fully realize the conditions which surrounded our pioneer fathers and mothers one hundred years or more ago. The "Old Log Cabin"* produced those strong, clean, independent, self-reliant individuals whom we honor to-day as our national heroic characters.

There is no need that we mention in this article the name of a single person who thus began an honorable life, because any school-boy or girl can enumerate them by the hundred. These pioneer homes were constructed without the aid of architect or artisan, and usually with the axe, entirely without saw, plane, or hammer; even nails were unknown or unobtainable. The walls were of selected logs, formed straight and true by nature, cut to length measured off not with a carpenter's rule, but by a notch cut into the handle of the axe. The bark was hewn off on two sides and each was then rolled up on skids to its place in the wall, notched, and fitted at each end with the axe in the hands of the skillful and self-reliant pioneer. These walls, when built up sufficiently high, were surmounted with a roof made of clapboards rived off from the butt-end of a tree that had been felled to the ground, selected because of its straight grain that permitted broad, thin pieces to be thus split off. These clap-boards, laid to overlap, were held in place by logs laid across at intervals. The logs of which the walls were constructed were so skillfully fitted that only a small space was left between which was filled or "daubed" with clay, often mixed with straw or rushes to hold it together.

The only other tool beside the axe was the auger—often consisting of an iron bar or rod, forged into a rude cutting edge at one end, with a handle at the other like a letter T. With this tool, holes were

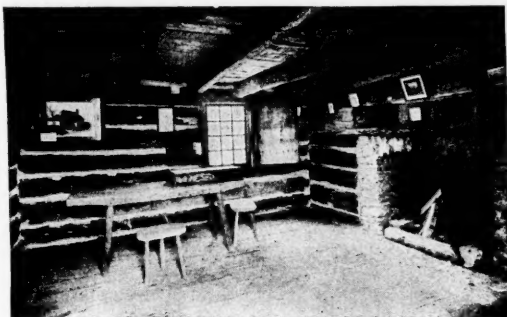
*The illustrations used in this article are an exterior and interior view of the home of Col. Robert Patterson, which has been preserved and kept in its original condition by his descendants in a small park at the corner of Main and Brown Streets, Dayton, Ohio. See RECORDS OF THE PAST, Vol. V., p. 241,

fashioned through straight pieces for jambs, which were set upright on each side of an opening left for a door and fastened to each log by a pin shaped with the axe and driven through in the end of each log.

Doors were formed of large clap-boards riven in the same manner as those for the roof and pinned with these wooden pins in lieu of nails to a dove-tailed frame, and then the whole was hung to the jambs by thongs of deer hide for hinges.

The open fireplace often occupied nearly all of one end of the cabin. This fireplace and chimney were constructed with smaller logs and pieces framed together in the same manner that the walls were made, and lined inside for a fire box with large flat stones set upright, and the whole daubed with clay clear to the top of the chimney.

Here then was shelter and warmth provided for, with fire for cooking as well. The refinements of civilized life were provided later as time would permit. The floor of earth was covered with puncheons,



LOG CABIN—INTERIOR

hewn flat and smooth on one side, then set into the earth floor and skillfully joined with the axe. A puncheon table was pinned to the logs on one side near the fireplace. On the opposite side from the fireplace bunk-beds were erected in a similar manner, and "cane feathers" in the South, fragrant cedar boughs in a pine country, and boughs, twigs, and leaves elsewhere provided the mattress and springs, while short pieces of puncheon with legs supplied the necessary stools or benches to sit upon.

Around the walls wooden pegs were driven into the logs, which served the purpose of a place on which to hang garments not needed to be worn, but these impromptu wardrobes were seldom in use, as extra or unnecessary garments were the exception rather than the rule in the beginning of pioneer home-making.

The poet is yet to rise who shall fashion into rhythm and cadence the sturdy independence, the simple honesty and the god-fearing simplicity of the wholesome lives begun under such apparently un auspicious conditions.

THOMAS FORSYTHE NELSON.

Washington, D. C.

BOOK REVIEWS

PRIMITIVE SECRET SOCIETIES

SECRET societies in some form seem to have existed in every race during a period of their development, and in a greatly modified form continue at the present time in the most highly civilized nations, so that this treatise on the development of primitive secret societies by Dr. Hutton Webster is of very general interest and importance. The work is a collection of observations and deductions taken from a vast number of sources with full bibliographical references. The author traces the development of the most primitive societies to their culmination, and in many cases traces also their decline, and the reasons therefor.

The most primitive of these societies was nothing more than a separation of the sexes out of which the institution known as the "Men's House" developed. Examples of this institution are found to have existed among savage and barbarous peoples in all parts of the world, from Australia, with its numerous native tribes, among some of which it still exists, to the Eskimos in Northern Labrador and Greenland. To the "Men's House" women were never admitted, and in most cases young boys were not allowed there until they had been initiated, or reached the age of puberty.

The next stage, apparently, in the development of such societies was the separation of the males according to age. The first step was the initiation ceremony, performed when the youth reached the age of puberty and put away his mother and the various forms of woman's work and amusement to which he had been accustomed as a child. Of the origin and significance of puberty rites, Doctor Webster says:

No doubt various beliefs arising from many different sources have united to establish the necessity of secluding boys and girls at puberty. Isolation from the things of flesh and sense has been a device not infrequently employed by people of advanced culture for the furtherance of spiritual life, and we need not be surprised to find uncivilized man resorting to similar devices for more practical purposes. The long fasts, the deprivation of sleep, the constant excitement of the new and unexpected, the nervous reaction under long-continued torments, result in a condition of extreme sensitiveness—*hyperaesthesia*—which is certainly favorable to the reception of impressions that will be indelible. The lessons learned in such a tribal school as the puberty institution constitutes, abide through life. Another obvious motive dictating a period of seclusion is found in the wisdom of entirely separating the youth at puberty from the women until lessons of sexual restraint have been learned. New Guinea natives, for instance, say that 'when boys reach the age of puberty, they ought not to be exposed to the rays of the sun, lest they suffer thereby; they must not do heavy manual work, or their physical develop-

**Primitive Secret Societies*, A Study in Early Politics and Religion, by Hutton Webster, Ph.D., pp. xiii, 227.

ment will be stopped, all possibility of mixing with females must be avoided, lest they become immoral, or illegitimacy become common in the tribe.' Where the men's house is found in a tribal community, this institution frequently serves to prolong the seclusion of the younger initiated men for many years after puberty is reached.

Mixed with the bad in connection with these ceremonies there is a great deal of good, which is taught the young men in training for initiation into these societies.

Obedience to the elders or the tribal chiefs, bravery in battle, liberality toward the community, independence of maternal control, steadfast attachment to the traditional customs and the established moral code, are social virtues of the highest importance in rude communities. Savage ingenuity exhausts itself in devising ways and means for exhibiting these virtues in an effective manner to the young men so soon to take their place as members of the tribe. Some of the initiatory performances are even of a pantomimic nature intended to teach the novices in a most vivid fashion what things they must in future avoid.

In all these societies the elders have the controlling power, the younger men having to pass through various stages. In the Yoruba tribes of West Africa this is carried so far that a boy must remain under the control of the "presiding elders" of the tribal society until he has killed a man, thus demonstrating his courage and securing "for himself the soul of the man he has killed as a spirit slave."

These societies gradually developed from general ones, to which almost any able-bodied man was eligible, to more and more exclusive bodies. At the same time the power of authority shifted from the elders to tribal chiefs, and a form of aristocracy arose.

In spite of these divergencies in development, it is still possible to make out the main lines along which the evolution of the primitive puberty institution has proceeded. However striking may be the differences between such an institution as the *Bora* of the Australian natives and a tribal secret society like the *Dukduk* of the Bismark Archipelago or the *Egbo* of West Africa, they appear, in the last analysis, to be due fundamentally to the changes brought about when once the principle of limitations of membership is introduced. The process which converts the puberty institution into the secret societies of peoples more advanced in culture, seems in general to be that of the gradual shrinkage of the earlier inclusive and democratic organizations consisting of all the members of the tribe. The outcome of this process on the one hand, is a limitation of the membership of the organization to those only who are able to satisfy the necessary entrance requirements; and, on the other hand, the establishment in the fraternity so formed of various degrees through which candidates may pass in succession. With the fuller development of secret society characteristics, these degrees become more numerous, and passage through them more costly. The members of the higher degrees, forming an inner circle of picked initiates, then control the organization in their own interests.

Terrorism exercised on the women and uninitiated is found in the simplest of the secret societies, but early develops into one of the most powerful instruments of the more advanced societies, as where the women and uninitiated men and boys are made to believe the sound of the Bull-roarers and sacred drums to be the noise caused "by the trampling of an evil spirit who has come to remove the boys" who

are to be initiated into the society, and the sight of this spirit would bring death to the uninitiated. Concerning the development of these societies Doctor Webster continues:

Originally, as we have seen, at the initiation ceremonies, youths were solemnly inducted into the religious mysteries of the tribe; mysteries, which, though not unattended by many devices of a fraudulent nature, did nevertheless maintain themselves by a real appeal to the religious aspirations of the candidates. But with the advance to the secret society stage, the religious aspects become more and more a pretence and a delusion, and serve as a cloak to hide mere material and selfish ends. The power of the secret societies in Melanesia and Africa rests entirely upon the belief, assiduously cultivated among outsiders, that the initiated members are in constant association with the spirits, with the evil spirits especially, and with the ghosts of the dead.

The decline of the tribal societies is marked, according to Doctor Webster, by the admission of women to part of the privileges of these societies. At present the advance of civilization is causing the most rapid decline in the strength of such societies.

Clans and magical fraternities are the last development. The traces of the latter of these are seen in many of the more advanced civilizations, and the "mysteries of classical antiquity" disclose "in the rites of the *Eleusinia* and *Thesmophoria*, the dimly veiled survival of an earlier and a ruder age. For the magical practices and dramatic ceremonies afterward elaborated into the ritual of a solemn religious cult, which were the chief characteristics of the Greek mysteries, may be traced by the curious student to primitive rites in no wise dissimilar to those which, as we have seen, embody the faith and worship of the modern savage. *Omnia exeunt in mysterium!*"

Doctor Webster's volume represents a vast amount of research and presents a remarkable collection of evidence bearing on this universal custom of primitive peoples. We have here only indicated the outline of the book, but have given enough to show its breadth and the interest which it creates in this most fascinating subject.

FREDERICK BENNETT WRIGHT.



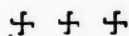
AVESTA ESCHATOLOGY¹

A comparative study of the Exilic Semitic Scriptures with the Avesta has been prepared by Dr. Lawrence H. Mills, professor of Zend Philology in Oxford, in which he endeavors to trace the in-

¹*Avesta Eschatology compared with the Books of Daniel and Revelations*, by Dr. Lawrence H. Mills. 85 pp. Chicago: The Open Court Publishing Co. 1908.

fluence of Medo-Persian and Babylonian philosophy upon the Jewish literature during the captivity, which has become incorporated into our Bible, as seen in the familiar passages which we meet with in Chronicles, Ezra, Nehemiah, and again later in Isaiah and Daniel. He seems to present a point of view, if not a new field, for profound and interesting religious detail, when studied in connection with the Achæmenian inscriptions of the Persian kings, whose edicts are cited in the Bible.

Persian theology seems to have been divided into two schools: The Median, which was more thoroughly Zoroastrian, as represented by the Zend-Avesta, and the Southern School of Persepolis, as represented by the Achæmenian inscriptions, and he takes it for granted that the entire mass of Zoroastrian doctrine must have exerted a most decided influence upon the development of Jewish Exilic, and hence of the Christian theology.

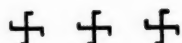


THE DATED EVENTS OF THE OLD TESTAMENT²

The progress of excavations in the Far East has added so much to our knowledge of the early history of the countries, directly and indirectly referred to in the Old Testament, that it is now possible to ascribe fairly accurate dates to many events there recorded as taking place since the time of Abraham. Although it will be many years before Biblical dates can be so definitely established that there will be no divergence of opinion among eminent scholars, yet a multitude of people desire a summary of the conclusions reached by scholars as to these dates, which is conveniently arranged for ready reference. It is just this want which is satisfied by Dr. Willis Judson Beecher in his recent book on *The Dated Events of the Old Testament*. In the preface he tersely expresses the object of the book by saying, "The tables in this little volume present to the eye a reasonably complete list of the events narrated in the Old Testament, with their time relations; first of all the relations of each event to other near events, Israelitish or foreign, and also its date in terms of the Christian era. The tables distinguish between the dates which are fixed by positive evidence and those which are matters of conjectural opinion. They also present to the eye a conspectus of the evidence by which each event is dated, and the reasons for the variant opinions that men hold concerning the chronology. And not least important, they make graphic by means of their blank spaces the fact that in the Old Testament we have never an attempt at a complete history, but everywhere narratives of selected incidents."

²*The Dated Events of the Old Testament*, being a presentation of Old Testament Chronology. By Willis Judson Beecher, D. D., pp. 202. The Sunday School Times Company, Philadelphia. 1907.

Every one interested in Bible history, especially Sunday-school teachers and the clergy, will welcome this volume, which well fulfills the forecast as set forth in the preface.



ARCHAEOLOGICAL AND ETHNOLOGICAL PUBLICATIONS OF THE UNIVERSITY OF CALIFORNIA³

It is fortunate that the University of California is able to push its ethnological work with such vigor at the present time, for each year the data for pursuing this subject in its state are diminished, and the study of the great linguistic stocks—"the Pomo, Yuki, Athapaskan, Wintun, and Moquelumnan"—inhabiting California prior to the settlement by the whites, becomes more difficult.

This monograph on the *Ethno-Geography of the Pomo and Neighboring Indians*, by S. A. Barrett, is prepared from notes made by the author in 1903, 1904, and 1906. He considers not only the linguistic boundaries of the tribes, but also their present villages and customs, and their old village and camp sites. A large folded map shows the linguistic divisions and village sites, as determined by the author.

A short report on the *Geography and Dialects of the Miwok Indians*, by S. A. Barrett, and also one on the *Evidences of the Occupation of Certain Regions by the Miwok Indians*, by A. L. Kroeber, has just been issued by the University of California.



PRINCIPIA ETHICA⁴

In this book Dr. George Edward Moore treats the subject under the following heads: The Subject-matter of Ethics, Naturalistic Ethics, Hedonism, Metaphysical Ethics, Ethics in Relation to Conduct, and The Ideal. He considers the main cause for difficulties in the study of the subject and the disagreements among its students to be due to "a very simple cause; namely, to the attempt to answer questions, without first discovering precisely *what* question it is which you desire to answer."

³*Ethno-Geography of the Pomo and Neighboring Indians*. By S. A. Barrett. University of California Publications in American Archaeology and Ethnology, Vol. VI, No. 1, pp. 332, and map.

The Geography and Dialects of the Miwok Indians. By S. A. Barrett and A. L. Kroeber. University of California Publications in American Archaeology and Ethnology, Vol. VI, Nos. 2 and 3, pp. 48 and map. The University Press, Berkeley, California, 1908.

⁴*Principia Ethica*. By George Edward Moore. pp. xxvii, 232. University Press, Cambridge, England. 1903.

EDITORIAL NOTES

ROMAN TESSERÆ.—Mr. Percy Webb classes certain bronze tesserae, or tickets, under 3 heads, imperial (or those bearing the names of emperors); mythological, and those pertaining to games. The use is not certain, but they may have served as tickets of admission, or even as lottery counters.

AURELIAN WALL AT ROME.—The Municipality of Rome started not long ago to destroy part of the Aurelian Wall between the Porta Pinciana and the Porta Salara. The more important Italian journals condemned the action, and such a storm of public opinion was roused that the government has given notice that further demolition will be stayed. The damage already done, however, cannot be repaired.

CHANGE OF HEADQUARTERS OF THE WISCONSIN ARCHEOLOGICAL SOCIETY.—Mr. Charles E. Brown, one of the organizers of the Wisconsin Archeological Society, and, since the inception of its work, the secretary and curator of the society, has been appointed chief of the State Historical Museum at Madison, Wis., one of the most important institutions of its kind in the Northwest. As Mr. Brown will continue to direct the labors of the Archeological Society, its offices have been removed from Milwaukee to Madison.

FRANK CEMETERY IN BELGIUM.—Within the last few months 45 separate graves have been opened in the Frank Cemetery at Haïne-St. Paul, Belgium. In 25 of the tombs ornaments and the black pottery characteristic of the Merovingian period were found. Three seem to have been reserved for women, judging from the ornaments found, i. e., bracelets, brooches, rings, etc. The various ways of placing the bodies indicates that the cemetery was in use during an extended period.

MEANS OF COMMUNICATION ALONG THE LINE OF THE ROMAN WALL IN ENGLAND.—Mr. Percival Ross, in a lecture before the Bradford Historical and Antiquarian Society, brought forward the opinion that communications were not made from one turret to another of the Roman Wall by means of a brass speaking tube, as many have thought. Communications were made, he holds, along the road inside the wall, and carried from the turrets to the camp by horsemen.

POPULAR ORIGINS OF ART.—In a paper before the Academy of Inscriptions at Paris, M. E. Pottier considers pre-historic and savage art, which represents mainly animals useful to man, as intended to secure, by magic, an abundant supply of game or other food. To music he would ascribe a utilitarian origin also, believing it to have been employed first to direct the simultaneous actions of workers. This last would seem to be substantiated by a Greek terra-cotta of the VI century A. D., where 4 workmen are directed by a flute player.

PUBLICATIONS OF THE WISCONSIN ARCHEOLOGICAL SOCIETY.—During 1907 the Wisconsin Archeological Society has issued 4 valuable publications, *The Implement Caches of the Wisconsin Indians*, *The Winnebago Tribe*, *The Indian Authorship of Wisconsin Antiquities*, and *A Record of Wisconsin Antiquities*. Four are to be published in 1908. One of these, *Additions to the Record of Wisconsin Antiquities II*, is just issued, and another, *The Archaeology of the Lake Kaskhonong Region*, is now in press.

MUMMY OF PRIESTESS OF AMEN RA.—In the Mummy room of the British Museum there is now on exhibit one of the priestesses of the priesthood of Amen Ra, at Karnak. The mummy is covered with a cartonnage casing modeled in the form of the body; the face is a portrait of the deceased, overlaid with gold. The eyes and eyebrows are inlaid with obsidian. Many representations of the priestess praying to Osiris Anubis occur on the sides of the coffin. The coffin, as is usual, is the shape of the mummified body, and coated with gold paint. The date is supposed to be 1000 B. C.

EXCAVATIONS AT OSTIA.—In the course of work at Ostia, the ancient port of Rome, a room has recently been excavated, the walls of which were painted with a single figure at each of the 4 corners, and the floor was paved with black and white mosaic. On the floor were found fragments of the ceiling, painted to match the walls. Ancient money was found, as well as several amphoræ with painted inscriptions, the bottom of a vase, glass with gold letters, lamps, remains of inlaid furniture, mosaics, and ceilings of the upper room. A corridor led to the lower room, which contained a window, evidently glazed with mica. The wall paintings in this room were better preserved than others at Ostia, because of white plaster added at some later time. Professor Vaglieri, who is superintending the work, hopes for still further treasures.

PROGRESS OF EXCAVATIONS IN EGYPT.—The following letter has been received from Dr. M. G. Kyle, at Cairo, Egypt: "Excavations are in progress in Egypt in a number of places this winter. On my way to Abu Gurob, a few days ago, to examine the great altar there, I passed the great work the Germans are doing at Abusir, under the direction of Professor Doctor Borchardt. Doctor Borchardt

was absent, but his assistant in charge, Doctor Wriszinski, was most courteous and kind, and showed me the great work just being completed of the uncovering of the splendid temple for the cult of the dead, erected, indeed, before all the pyramids. This pyramid and temple were by Sahu're, some of whose inscriptions have already been removed to the museum at Cairo, and installed there. Some new, interesting, and suggestive things will be given to the world when the work of these thorough-going German explorations is published. It may be awaited with expectation."

FRAGMENT OF AN UNCANONICAL GOSPEL.—Doctors Grenfell and Hunt have recently edited a fragment of an uncanonical Gospel, found at Oxyrhynchus. The leaf found is hardly more than two in. sq., but has 45 lines on the two sides. It is distinct from any of the other uncanonical Gospels of the II or III century, and seems to have been composed before 200 A. D., though this valuable and interesting manuscript was probably not written until the IV or V century. The chief interest is in the reference to the Jewish ceremonies of purification in connection with the temple worship. A Pharisee, a Chief Priest, was angry because Christ and his disciples had neglected the necessary ceremonies, while he himself was clean. The account continues: "The Saviour answered and said unto him, Woe, ye blind, who see not. Thou hast washed in these running waters wherein dogs and swine have been cast night and day. * * * But I and My disciples, who thou sayest have not bathed, have been dipped in the waters of eternal life."

ROMAN BRONZE VESSELS FOUND ON LAMBERTON MOOR.—Before a meeting of the Society of Antiquaries, in London, Mr. R. Smith recently described a hoard of Roman bronze vessels and ornaments found on Lamberton Moor, Berwickshire. It contains fragments of 4 skillets of saucepan shape, 4 small bowls of wrought bronze, a massive bronze beaded collar, two small spiral coils of bronze that may have been joined together, two harp-shaped brooches and another in S-form. The brooches were cemented together by the rusting of a chain that joined the pair; all were enameled in colors. This appears to have been the ceremonial outfit of some priest. A parallel collection had been found previously near Backworth, Northumberland. One of the smaller bronze vessels, from Lamberton Moor, was British in character, and had a round perforation in the base, suggesting its use as a water-clock. [For the method of using water-clocks, see RECORDS OF THE PAST, Vol. VI, p. 120.] This deposit must have been made in the closing years of the I century, or the opening years of the II century A. D.

ANTHROPOLOGY OF CALIFORNIA.—In an address before the section of Anthropology of the American Association for the Ad-

vancement of Science at the Chicago meeting Mr. A. L. Kroeber gave a review of anthropology in California. About 20 distinct languages exist among the Indians. As each has only a few words common to its neighboring tribes, Mr. Kroeber thinks these common words indicate borrowing, not necessarily relationship. Rarely are there more than 6 or 8 dialects of one stock. All are characterized by simplicity of structure. With regard to the influence of environment upon the peoples of California he says: "We are really only justified in saying that the differentiation of speech seems to be causally related with other factors and that these are immediately cultured and historical, and only indirectly physical and environmental." Physical environment, he further holds, must not be given too much credit for any given custom or culture. It may be a stimulus, or render some custom unnecessary or impossible, but it always has some historical background of culture upon which to work.

JOINT MEETING OF WISCONSIN SCIENTIFIC AND HISTORICAL SOCIETIES.—February 13 and 14 there was held in Milwaukee a joint meeting of the various historical and scientific societies of Wisconsin. About 250 persons from Wisconsin and adjoining states attended the meeting. The archaeological program was largely on topics of local interest. Among the addresses were: *The Archaeological Wealth of Wisconsin*, by Mr. A. B. Stout; *Local Historical and Archaeological Museums*, by Mr. Ruben G. Thwaites; *Rude Stone Implements from the Congo Free State*, by Mr. Frederick Starr; *Judgment Used by the Aborigines in Selecting Materials for Their Utensils and Weapons*, by Mr. George L. Collie; *Archaeological Work in Wyoming*, by Harlan I. Smith; *Trade Beads of Wisconsin*, by Mr. Publius V. Lawson; *The Tabular Mounds of Wisconsin, Their Purpose and Authorship*, by Mr. George H. Squier; *Mounds in the Vicinity of McFarland, Dane County*, by Mr. W. G. McLachlan; *The Occurrence of Perforated Pottery-disks in Wisconsin*, by Mr. Charles E. Brown; *A Mandan Village Site*, by Mr. Herbert C. Fish; *The Progress of Archaeological Research in Wisconsin*, by Mr. Warren K. Moorehead.

ROMAN COINS.—Mr. G. F. Hill recently described to the Royal Numismatic Society (London) two hoards of Roman coins. One hoard contained bronze coins of the Tetrarchy (Diocletian, Maximian, Hercules, Constantius I, and Galerius), found near Brooklands motor track, Weybridge. The coins were *folles*, 136 in number, struck in London, Aquileia, Tarraco, Lyons, Treves, and Alexandria, about A. D. 296-307. They were mostly of the "Genio Populi Romani" type. The mint at Treves contributed 75 to this hoard, that at London 30, and that at Lyons 21. The other hoard contained 337 silver pieces, *siliquæ* found some years ago, at Ichlingham, Suffolk. They belong to the second half of the IV century, or the early years of

the V century, from the time of Julian II to Arcadius. The mints represented are those of Treves, Lyons, Arles, Milan, Rome, and Siscica. Evidently the coins were buried about the time of the departure of the Roman legions from Britain. They may have been part of a military chest, or of the private fortune of a Roman soldier of high rank. In the *Anglo-Saxon Chronicle*, it is mentioned that the Romans collected all their treasure, some of which they buried, so that no man might find it, and some of which they carried away with them into Gaul. This hoard may have been such treasure.

WORK OF BRITISH SCHOOL AT ATHENS.—The continuation of the excavations of the sanctuary of Artemis Orthia at Sparta has brought to light many articles valuable not only artistically, but as indexes of the external relations of Sparta in early times. The deepest layer yielded a small quantity of amber, implying connection with the northern part of Europe. In the layer dating from the VII century B. C., were "orientalizing" pottery and ivories, the latter resembling the newest finds from the Artemisium at Ephesus, interesting, therefore, from the tradition that an Ionian came to Sparta and built the temple of Athena Chalciæcus. Egyptian influence appears in a number of scarabs and intaglio seals.

The bronzes found in this sanctuary may be arranged chronologically from the stratification. The consideration of the style tends to the same classification. Certain bronze brooches with double spirals seem to have been the models for those of ivory found at Sparta about the close of the Geometric era. The finest bronze from the temple of Orthia is an archaic Greek brooch, showing on one side a woman's head crowned with a *polos*, and on the other the forepart of a lion.

The earliest pottery belongs to the Geometric period. The Laconian style is simple. It is succeeded by an "orientalizing" style of local manufacture, closely resembling Cyrenaic ware of the VI century B. C.

DEATH OF PROFESSOR SEYMOUR.—The death of Thomas Day Seymour, which occurred on December 31, 1907, is a serious loss to the world of archæologists, as well of Greek scholars. Born in 1848, in Hudson, Ohio, where his father taught Greek in Western Reserve, he was early surrounded with scholarly influences. Two years after his graduation at Western Reserve, in 1870, he began teaching Greek in his alma mater. From 1880 until the time of his death he taught Greek at Yale. The degree of Doctor of Laws was granted him by Western Reserve University, by Glasgow, and by Harvard.

The soundness of his scholarship was widely recognized among scholars. His most elaborate work was *Life in the Homeric Age*, published in 1907, which was the result of years of close study, and is a fitting climax to his life work.

As president of the Archæological Institute of America he was prominent in the field of archæology. He was also chairman of the

managing committee and trustee of the American School of Classical Studies at Athens; associate fellow of the American Academy of Arts and Sciences in Massachusetts; honorary member of the Society for the Promotion of Hellenic Studies of London, and of the Archæological Society of Athens.

FRAGMENTS OF BIBLE MANUSCRIPTS.—Among the papers read before the meeting of the Archæological Institute of America at Chicago was one by Prof. H. A. Sanders, of the University of Michigan, in which he described the portions of 4 manuscripts of the Bible now in the possession of Mr. Charles Freer of Detroit. One contains Deuteronomy and Joshua; another, the Psalms; another, the 4 Gospels; the last, parts of the Epistles and of Acts. The readings of this last will probably be of great value, wherever they can be deciphered. The manuscript of the Gospels is from the V or VI century and has many valuable readings. The most important were evidently known to St. Jerome. One is here quoted:

"And they answered, saying that this age of unrighteousness and unbelief is under the power of Satan, who does not permit the things which are made impure by the (evil) spirits to comprehend the truth of God (and) His power. For this reason 'Reveal thy righteousness now,' they said to Christ, and Christ said to them: 'The limit of the years of the power of Satan has been fulfilled, but other terrible things are at hand, and I was delivered unto death on behalf of those who sinned in order that they may return to the truth and sin no more, to the end that they may inherit the spiritual, indestructible glory of righteousness (which) is in heaven.'"

Scholars have long held that Mark xvi 8-20 was a later addition, borrowed from some other Gospel. This new manuscript, perhaps, gives the original form of the passage which, mutilated, was added to Mark.

JEWELS OF TA-USERT.—Mr. Theodore M. Davis and Mr. Ayrton, in the course of excavations in the Valley of the Tombs of the Kings at Thebes have opened a tomb in which were the jewels of Queen Ta-usert, the granddaughter of Ramses II, and the last ruler of the XIX Egyptian dynasty. The chamber was filled with clay, which had become almost as hard as rock. This appears to have been a private tomb whither the Queen's jewels were for some reason removed.

The inscriptions on some of the jewelry make it certain that Ta-usert was married to Seti II, the grandson of Ramses II. Some of the objects belonged to the king. For instance, two large epaulets, formed of poppy-heads, hanging from a plate which hangs from a golden bar, bear Seti's name. There is also a pair of silver bracelets on which is a representation of Seti on his throne and the queen before him. A large number of rosettes, inscribed with the names of both,

was among the finds. These were probably attached to the dress by means of a gold stud with a hook. What appears to have been the king's signet ring was found. It has upon it the vulture goddess, inlaid in precious stones, and surmounted by the symbol of the sun-god. Another ring consists of open gold-work, forming the name and titles of Ramses II.

Among the other jewels, all of which belonged to the queen, were hundreds of open-work balls and pendant poppy-heads, which were strung alternately on a series of threads. There were at least 7 finger-rings, 3 of which were set with scarabs, containing the queen's name; two others were double rings with the royal cartouches; another was formed of 4 strands of gold wire and 8 precious stones. Bracelets, ear-rings, small figures of Seti, Apis, and various animals, as well as the circlet of the queen's crown were among the ornaments found.

The foundations of some workmen's huts were uncovered at a little distance from the tomb. Most of them had pots let into the floors, probably for the safe-keeping of money. Rubbish pits in the neighborhood yielded interesting relics, among them a bouquet of papyrus blossoms, stitched in order to keep the petals in place. Some pieces of limestone, inscribed with what seem to be the accounts of the overseers, were dug up.

EXCAVATIONS OF ROMAN WALLS AT PEVENSEY, ENGLAND.—The outer court of Pevensey Castle has been identified as the site of the Roman military station of Anderida. In October, 1906, and again in October, 1907, work was carried on to determine the interior arrangements of this military station. During 1906 about $1\frac{1}{4}$ acres were thoroughly explored. About 40 bronze coins, from A. D. 254 to 375, were found, pointing to the date of its Roman occupancy as the IV century, though a possible earlier Romano-British occupation may have occurred. The traces of such occupation are in the shape of pottery, but these fragments may have belonged to the native workmen who built the wall. There seem to be other evidences of these workmen in part of an encampment consisting of several lines of wattle and daub huts with hearths of tiles. These are of rough construction, and, therefore, probably are not those of the soldiers. The use of Roman tiles, however, shows that the hearths were not pre-Roman. The fortified site was a clay hill, with the sea on the south and east, and swamps on the north. The Romans cut away the edge of this. On the north they anchored the ground by driving in oak piles; on the other sides they prepared the clay for the wall by puddling. Alternate layers of chalk and flints were placed on the puddled clay. Next was a layer of flints set in hard mortar; on top of that the plinth; and last of all the wall 12 ft. 3 in. thick and 25 to 30 ft. high.

Two of the gates were merely openings, but a third was more elaborate. The passage through the wall in the last case was curved, and broader at the inside end than at the outside.

No traces of permanent buildings were found. Much pottery of various types, but in a fragmentary condition, was found. One fragment of a tile stamped with what seems to be a new form of the CL(assarii) BR(itannici) stamp occurred. Another tile was found bearing an inscription shown by another example in Mr. Charles Dawson's possession to have read HON AVG—ANDRIA, clearly refers to the Emperor Honorius, and probably to the name of this military station preserved in two forms, "Anderida" and "Anderesium."

ARCHÆOLOGICAL WORK NEAR BATH, ENGLAND.—

In June, 1905, experimental trenches were dug at the north end of Lansdown, 4 miles from Bath, and more work has been done since. The field of operations was triangular, including 7 acres. The land slopes toward the south, and is flat except for low banks, forming irregular enclosures. When these banks were cut, they proved to be made of thin stones laid flat, or of rubble. Parts of the foundations of 6 buildings have been found. Probably they were roofed with stone tiles, for a few broken ones have been found pierced with holes for nails. The bases and capitals of some pilasters were discovered. Just below the surface of a mound, built of thin stones laid flat, are a wall and cross walls. South of this a trench 6 ft. deep and 7 ft. wide at the top and 3 ft. at the bottom had been cut through the rock. To the north a similar trench 44 ft. long appeared. Two ft. 8 in. from the surface was a bed of burnt material, 6 to 8 in. thick, and $3\frac{1}{2}$ to 5 ft. wide. Above were two Roman coins, bronze fibulæ, finger rings, and other such objects. Below, animal bones and fragments of pottery were found. The boundary wall was built on a bank of thin stones laid flat. Six feet of the wall was pulled down, and a cutting made through the bank. Under this bank the workmen found the foundation of a building, which extended from this field into the next. There were 3 Roman coins in the bank. Among the finds were a mosaic brooch, fibulæ, amulets, finger rings, tweezers, spoons—all of bronze; iron knives, keys, parts of horsehoes, and an axe. The coins found included one rude British and 234 Roman coins, covering a period of 270 years. Four stone coffins, hewn out of solid rock, were examined. Two of the skeletons were those of females and two of males. Another male skeleton, with no coffin, lay on its side, facing the east, and a woman was found buried face down. Other human skulls and bones were together in a heap. The site seems to have been occupied shortly before the Roman time. Certain curious moulds, found here, may probably be ascribed to the pre-Roman period, and indicate that the inhabitants of the region practiced metallurgy. They are made of the local Lias formation, and appear to be almost unique. The only parallel is found in moulds for bronze ornamented strainers, etc., occurring in Egypt, usually ascribed to the Græco-Alexandrian artists. These, however, are ruder. They seem to have been intended for making handles of *paterae*, or mirrors and small ornaments.

